



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

### Usage guidelines

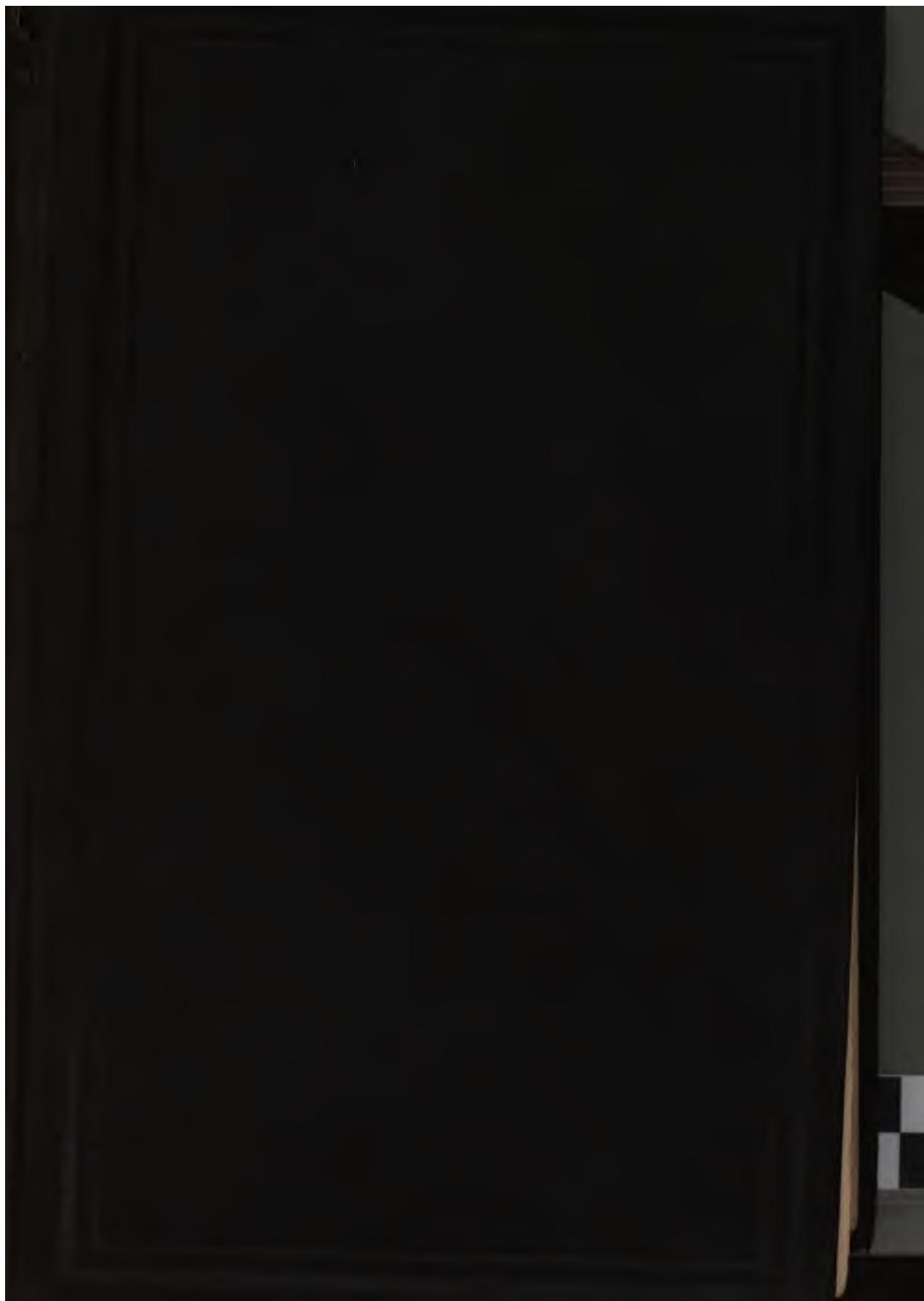
Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

### About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>



A L1.2



Y4. C33<sup>2</sup>:H62





312.73  
U 58/w  
Doc. copy

1

2

3

4

THE HISTORY AND GROWTH  
OF THE  
UNITED STATES CENSUS,

PREPARED FOR THE  
  
SENATE COMMITTEE ON THE CENSUS,

BY

CARROLL D. WRIGHT,  
COMMISSIONER OF LABOR,

Assisted by WILLIAM C. HUNT, Chief Statistician,  
Twelfth Census.



WASHINGTON:  
GOVERNMENT PRINTING OFFICE.  
1900.

589561

IN THE SENATE OF THE UNITED STATES.

FEBRUARY 23, 1900.—Considered and agreed to.

*Resolved*, That the Commissioner of Labor be, and he is hereby, directed to forward to the Senate, for its use, the manuscript prepared by him on "The History and Growth of the United States Census."

2

VSAAJBLI 0807MATE

DEPARTMENT OF LABOR,  
*Washington, D. C., February 24, 1900.*

SIR: In accordance with a resolution adopted by the Senate yesterday, I have the honor to forward herewith the manuscript prepared by me on The History and Growth of the United States Census.

I am, respectfully,

CARROLL D. WRIGHT,  
*Commissioner.*

Hon. WILLIAM P. FRYE,  
*President pro tempore United States Senate.*



## CONTENTS.

---

Introduction .....	Pa <i>g</i> e 7
Estimates of colonial population.....	8-
Historical review of the Federal census.....	12-
First census: 1790 .....	12-
Second census: 1800 .....	17-
Third census: 1810 .....	20-
Fourth census: 1820 .....	25-
Fifth census: 1830 .....	28-
Sixth census: 1840 .....	32-
Seventh census: 1850 .....	39-
Census of Minnesota: 1857.....	
Eighth census: 1860 .....	50-
Ninth census: 1870 .....	52-
Tenth census: 1880.....	58-
Eleventh census: 1890 .....	69-
Condition of census records .....	76-
Permanent census bureau .....	79-
Twelfth census legislation.....	83,
Growth of census inquiries.....	84-1
Appendixes:	
A.—Schedule inquiries, instructions, etc.....	131-£
B.—Publications of the United States census.....	911-£
C.—Total and per capita cost of United States censuses .....	£
D.—Summary of United States census legislation.....	917-£
E.—Census acts: 1790, 1840, 1850, 1880, 1890, and 1900.....	925-£
F.—References to the United States census in Presidents' messages.....	957-£
G.—References to the United States census in certain Government pub- lications .....	961-£



# THE HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

---

## INTRODUCTION.

The legislation which has been effected for the purpose of taking the twelfth and subsequent censuses (*a*) contemplates a somewhat radical departure, in the light of the experiences of the more recent enumerations, in limiting the decennial work to four general topics, namely, population, agriculture, manufactures, and vital statistics, and leaving for later consideration some of the many special subjects of inquiry which have formed a part of the reports of the tenth and eleventh censuses. Much of the criticism which has arisen concerning the work of the later censuses is due to the great increase in the scope of the Federal census, to the incompleteness of the work of preparation, the high-pressure conditions under which it has been carried on, and the inevitable delay in the publication of the several volumes constituting the final report. These conditions do not come from any lack of zeal or integrity of effort on the part of the Census Superintendent and his corps of assistants, but arise rather from the entirely temporary character of the census organization and the lack of time in which properly to prepare for the work of enumeration and compilation, so essential to the production of a report harmonious and consistent in all its details, and concerning the general accuracy of the results presented therein there can be no reasonable cause for criticism or complaint. This suggests an ideal condition of affairs surrounding census work that can not begin to be realized, even, until the office is placed upon a stable basis, properly organized and equipped for practically continuous work, and the officials in charge given an opportunity to demonstrate their capacity to do efficient work under fairly satisfactory conditions and to prove the desirability and usefulness of a permanent census organization, not only on the score of increased accuracy and efficiency in the work, but also with respect to its admitted economy.

---

*a* Act of March 3, 1899.

The number and extent of the census inquiries, starting in 1790 with but a single schedule calling for only two or three details as to the color, sex, and age of the population, have been a matter of steady growth from decade to decade, particularly since 1850, until they have culminated at the last two censuses in a very great variety of topics of investigation, comprising many different schedules and an almost endless number of inquiries; and in view of the recent legislation by which the decennial work of the twelfth census is limited to four subjects of investigation, a somewhat extended survey and study of the history and growth of the Federal census may not be without value.

In tracing this growth of census inquiry from the first enumeration, in 1790 to the eleventh, in 1890, it is the present purpose to consider, first, the purely historical features of the several censuses, as to methods of enumeration, general scope of the inquiries and printed results, and the cost of the work, and to then show the inception and growth of the inquiries concerning each of the various subjects of investigation.

The general consideration of the primary purpose for which the decennial enumeration was established, and its subsequent development into a census of the population, wealth, and industry of the Nation, involves very properly a consideration of the purely conjectural estimates of population in colonial times, and brief mention is made, therefore, of some of the statements of colonial population which preceded the first regular enumeration of the inhabitants of the United States in 1790.

### ESTIMATES OF COLONIAL POPULATION.

Among the earliest estimates of population during the colonial period are those given by Mr. Franklin Bowditch Dexter, (*a*) who concludes, after a careful study of the various estimates for each of the American colonies, that "in the first third of a century, or by 1640, when Parliament gained the ascendancy in England, British America contained a little over 25,000 whites, 60 per cent of them in New England, and the most of the remainder in Virginia," and that "at the restoration of monarchy in 1660 the total was about 80,000, the greatest gain being in the most loyal divisions, Virginia and Maryland, which now comprehended one-half the whole."

At the period of the great European revolution of 1688, the twelve oldest States of our Union contained, according to Mr. Bancroft, (*b*) and his figures are confirmed by Mr. Dexter's observations, "not very many beyond 200,000 inhabitants, of whom Massachusetts, with Plymouth and Maine, may have had 44,000; New Hampshire, and Rhode Island with Providence, each 6,000; Connecticut, from 17,000 to

---

*a* Estimates of Population in the American Colonies, p. 29.

*b* History of the United States, I, 602.

20,000; that is, all New England, 75,000 souls; New York, not less than 20,000; New Jersey, half as many; Pennsylvania and Delaware, perhaps 12,000; Maryland, 25,000; Virginia, 50,000, or more; and the two Carolinas, which then included the soil of Georgia, probably not less than 8,000 souls."

In 1700, "at the close of the first hundred years after the earliest permanent English settlement in America, and when all the original States except Georgia had been founded," as stated by Mr. De Bow, (*a*) "the whole population in the country was estimated at only 262,000," of which each colony was said to contain the following numbers:

Massachusetts .....	70,000	Pennsylvania .....	20,000
Connecticut .....	30,000	Maryland .....	25,000
Rhode Island .....	10,000	Virginia .....	40,000
New Hampshire .....	10,000	North Carolina .....	5,000
New York .....	30,000	South Carolina .....	7,000
New Jersey .....	15,000		

From 1700 to 1750, two estimates are given by Mr. Dexter, (*b*) as follows: "A round half million appears to have been reached about 1721, with the middle colonies showing again the largest percentage of growth, and New England the least. A million followed in twenty-two years more, or 1743, this figure being doubled in turn in twenty-four years later, or in 1767, the latter reduplication being delayed a little, doubtless by the effect of intervening wars."

Other estimates of the population in the middle of the century, derived from various data, differ more or less as to the population of the several colonies, but purport to show an aggregate of about 1,000,000 (presumably white persons) in the then 13 colonies.

This estimate is substantially confirmed by Mr. Bancroft, who states that, in 1754, "the 13 American colonies, of which the union was projected, contained, at that day, about 1,165,000 white inhabitants and 263,000 negroes; in all, 1,428,000 souls. The board of trade reckoned a few thousand more, and revisers of their judgment less." (*c*) The population of each colony in 1754, according to Mr. Bancroft's estimate, was approximately as follows:

Colony.	White.	Black.
New Hampshire .....	50,000	} 6,000
Massachusetts .....	207,000	
Rhode Island .....	35,000	
Connecticut .....	133,000	
New York .....	85,000	
New Jersey .....	73,000	5,500
Pennsylvania .....	135,000	11,000
Pennsylvania and Delaware .....	104,000	44,000
Maryland .....	168,000	115,000
Virginia .....	70,000	20,000
North Carolina .....	40,000	40,000
South Carolina .....	5,000	2,000
Georgia .....		

*a* De Bow's Industrial Resources, III, 404.

*b* Estimates of Population in the American Colonies, p. 29.

*c* History of the United States, II, 389.

In connection with the foregoing estimate of the probable population, white and colored, of the several colonies, which, as stated in a footnote, "rests on the consideration of many details and opinions of that day, private journals and letters, reports to the board of trade, and official papers of the provincial government," Mr. Bancroft cites estimates of the board of trade and individuals, and then says that "from many returns and computations the annexed table is deduced, as some approximation to exactness:"

Year.	White.	Black.	Total.
1750.....	1,040,000	220,000	1,260,000
1754.....	1,165,000	260,000	1,425,000
1760.....	1,385,000	310,000	1,695,000
1770.....	1,850,000	462,000	2,312,000
1780.....	2,383,000	562,000	2,945,000

He also gives the estimates, according to Chalmers, of the board of trade in 1714, on the accession of George I; in 1727, on that of George II, and in 1754, as follows:

Year.	White.	Black.	Total.
1714.....	375,750	58,850	434,600
1727.....	502,000	78,000	580,000
1754.....	1,192,896	292,738	1,485,634

For the intermediate period between 1770 and 1780 an estimated white population of 2,250,000 is given by Mr. De Bow, (a) who says: "In 1775, when Congress was desirous of apportioning the continental money among the States to be redeemed by them, the number of population ascertained was 2,243,000, an increase of over 100 per cent in twenty-five years, despite of the troubles of the times, which could not but have checked immigration and promoted emigration. The estimated slave population of the South was then about 500,000, swelling the whole to 2,750,000."

The distribution of the white population in 1775 was as follows:

New Hampshire.....	102,000	Delaware.....	37,000
Massachusetts.....	352,000	Maryland.....	174,000
Rhode Island.....	58,000	Virginia.....	300,000
Connecticut.....	202,000	North Carolina.....	181,000
New York.....	238,000	South Carolina.....	93,000
New Jersey.....	138,000	Georgia.....	27,000
Pennsylvania.....	341,000		

This estimate formed the basis of a table used in the convention of 1787, which framed the present Constitution of the United States, for

<sup>a</sup> De Bow's Industrial Resources, III, 404.

the purpose of determining provisionally the representation of each State in Congress pending an actual enumeration, (*a*) as follows:

New Hampshire.....	102,000
Massachusetts ( <i>b</i> ) .....	360,000
Rhode Island .....	58,000
Connecticut.....	202,000
New York ( <i>b</i> ).....	238,000
New Jersey .....	138,000
Pennsylvania .....	360,000
Delaware .....	37,000
Maryland, including three-fifths of 80,000 negroes .....	218,000
Virginia, ( <i>b</i> ) including three-fifths of 280,000 negroes .....	420,000
North Carolina, ( <i>b</i> ) including three-fifths of 60,000 negroes.....	200,000
South Carolina, including three-fifths of 80,000 negroes.....	150,000
Georgia, including three-fifths of 20,000 negroes.....	90,000
	<hr/>
	2,573,000
Add for negroes omitted .....	208,000
	<hr/>
Total estimated population.....	2,781,000

This table included, for purposes of apportioning representation, all the whites in the various colonies and three-fifths of the negroes in Maryland, Virginia, the two Carolinas, and Georgia, or 2,573,000 in all; but by adding to this total 208,000 negroes omitted, a total estimated population is secured of 2,781,000.

It is not claimed, of course, that these statements of population were based in any case upon a systematic canvass of the entire body of the people, in the sense of an actual enumeration, as now understood, because all the conditions prevailing at that time precluded the taking of an accurate census. These estimates are chiefly valuable, therefore, because they afford the only means of determining, approximately at least, the population of the colonies at various periods prior to the adoption of the Constitution.

The causes which led to the establishment, in 1790, of the regular periodical enumeration or census had their origin in the desire of the colonists to find some equitable plan for the distribution of the burdens of the war, which proved to be one of the most perplexing questions which entered into the deliberations of the Continental Congress. These causes are quite fully considered in the admirable report on the ninth census (*c*) made by General Garfield January 18, 1870, and need not be repeated here at length. It is sufficient for the purposes of this article to trace briefly the origin of the principle which found final

---

*a* Harper's First Century of the Republic, chap. vii.

*b* Massachusetts, it will be remembered, then comprised the territory which in 1820 became the State of Maine; New York that which in 1791 became the State of Vermont; Virginia that which in 1792 became the State of Kentucky; North Carolina that which in 1796 became the State of Tennessee.

*c* House Reports, Forty-first Congress, second session, Vol. I, No. 3.

expression in the constitutional provision for the apportionment of Representatives and direct taxes.

The general proposition to use the number of inhabitants as the basis of apportionment for certain purposes was canvassed as early as 1775, when it was proposed to apportion the bills of credit levied to meet the expenses of the war, for the redemption of which the thirteen colonies were pledged, according to the number of inhabitants of all ages, including negroes and mulattoes. The results of this provision were not uniform, and the attempts to conform to it only demonstrated the necessity of providing a central directing authority, if anything like an accurate enumeration was to be had. In seeking to secure this provision of authority in the proposed Articles of Confederation, the basis of apportionment according to population was maintained in the original draft, but the articles as finally agreed upon by Congress provided instead that the charges of war and other expenses incurred for the common defense and general welfare should be defrayed out of a common treasury, to be supplied by the several States in proportion to the value of all land within each State, and that requisitions for the quota of land forces to be furnished by each State should be made in proportion to the number of its white inhabitants.

Without considering the efficacy of these provisions for accomplishing the results intended, it is sufficient to state that in 1783 an attempt was made to amend the articles so that, in lieu of the apportionment according to the valuation of land, the burden of the war and other expenses incurred for the common defense and general welfare should be borne by the several States "in proportion to the whole number of white and other free citizens and inhabitants of every age, sex, and condition, including those bound to servitude for a term of years, and three-fifths of all other persons not comprehended in the foregoing description, except Indians not paying taxes, in each State." This proposed enumeration was to be made triennially and be transmitted to Congress in such manner as they should direct, but the amendment did not prevail, and the Articles of Confederation remained intact until superseded by the Constitution in 1787. It will be noticed, however, that the main features of the proposed amendment to the Articles of Confederation were afterwards embodied in the Constitution in the familiar clause prescribing the manner of apportioning Representatives and direct taxes, out of which came eventually the American census.

## HISTORICAL REVIEW OF THE FEDERAL CENSUS.

### THE FIRST CENSUS: 1790.

The constitutional requirement under which the Federal census is taken is contained in Article I, section 2, and provides that—

Representatives and direct taxes shall be apportioned among the several States which may be included within this Union according to

their respective numbers, which shall be determined by adding to the whole number of free persons, including those bound to service for a term of years, and excluding Indians not taxed, three-fifths of all other persons. The actual enumeration shall be made within three years after the first meeting of the Congress of the United States, and within every subsequent term of ten years, in such manner as they shall by law direct.

This provision was embodied in the Constitution for political reasons wholly, and with no thought of providing for any systematic collection of statistical data beyond the political necessities of the Government, as above indicated.<sup>(a)</sup> It is true, nevertheless, that under this constitutional requirement the United States was the first country to provide for a regular periodical enumeration of its inhabitants; but in the modern sense of the term it can not truthfully be called a census, and, as a matter of fact, the word "census" does not form a part of the organic act providing for the first enumeration, passed at the second session of the First Congress.

By this act, which was approved March 1, 1790, the marshals of the several judicial districts of the United States were required to cause the number of the inhabitants within their respective districts to be taken, omitting Indians not taxed, and distinguishing free persons, including those bound to service for a term of years, from all others. This separation in itself was sufficient to meet all the constitutional requirements of the enumeration, but the act also required the marshals to distinguish the sex and color of free persons and free males of 16 years and upward from those under that age; in the latter case, undoubtedly, for the purpose of ascertaining the military and industrial strength of the country.

For the purposes of this enumeration, which was to commence on the first Monday in August, 1790, and close within nine calendar months thereafter, the marshals were empowered to appoint as many assistants within their respective districts as they deemed necessary, and to assign to each assistant a certain division, consisting of one or more counties, cities, towns, townships, hundreds, or parishes, or of a

---

<sup>a</sup> It was evidently contemplated by the framers of the Constitution that the twofold purpose of the enumeration would insure a reasonably accurate return of population on the part of the individual States, the temptation to exaggerate for purposes of representation in Congress being offset by the fact that, in such cases, the apportionment of direct taxes would be correspondingly increased. On this point the *Federalist* (No. LIV, p. 344) says:

In one respect, the establishment of a common measure for representation and taxation will have a very salutary effect. As the accuracy of the census to be obtained by the Congress will necessarily depend, in a considerable degree, on the disposition, if not on the cooperation, of the States, it is of great importance that the States should feel as little bias as possible to swell or to reduce the amount of their numbers. Were their share of representation alone to be governed by this rule, they would have an interest in exaggerating their inhabitants. Were the rule to decide their share of taxation alone, a contrary temptation would prevail. By extending the rule to both objects the States will have opposite interests, which will control and balance each other and produce the requisite impartiality.

territory plainly and distinctly bounded by water courses, mountains, or public roads. The marshals and assistants, before entering upon the discharge of their duties, were required to take an oath or affirmation to make, or cause to be made, as the case may be, "a just and perfect enumeration and description of all persons" resident within their several districts, and, in the case of the assistants, to make due return thereof to the marshal, and, in the case of the marshals, to return the same to the President of the United States, agreeably to the directions of the act aforesaid, according to the best of their abilities. The assistants were required within the said nine months to transmit to the marshals accurate returns of all persons, except Indians not taxed, within their respective divisions, said returns to be made in a schedule (the form of which was prescribed by the act), distinguishing the several families by the names of their master, mistress, steward, overseer, or other principal person therein. The inquiries in 1790 related to but six items, and called for the name of the head of the family and the number of persons in each family of the following descriptions: Free white males of 16 years and upward; free white males under 16 years; free white females; all other free persons; slaves. In case any assistant failed to make return within the time specified by the act, or made a false return, he was to forfeit \$200.

For the purpose of settling "all doubts which may arise respecting the persons to be returned, and the manner of making returns," it was provided by the act that every person whose usual place of abode was in any family on the aforesaid first Monday in August next should be returned as of such family; in the case of persons having no settled place of residence it was provided that they should be enumerated in the division where they happened to be on the first Monday in August, and in the case of persons occasionally absent at the time of enumeration, as belonging to the place where they usually reside in the United States. The act also made it obligatory upon each and every person more than 16 years of age, whether the head of a family or not, to render a true account, to the best of his knowledge, of every person belonging to the family in which he usually resided, if so required by the assistant of his division, under penalty of forfeiting \$20.

Each assistant, before making his return to the marshal, was further required to "cause a correct copy, signed by himself, of the schedule containing the number of inhabitants within his division to be set up at two of the most public places within the same, there to remain for the inspection of all concerned," for each of which copies he was to receive \$2 upon submitting satisfactory proof of such action at the time of making his return to the marshal; but in case any assistant failed to make such proof he was to forfeit the compensation allowed him by the act.

The marshals were required to file the assistants' returns with the clerks of their respective district courts, who were in turn directed to

receive and carefully preserve the same, while the marshals were further required to transmit to the President of the United States, on or before September 1, 1791, "the aggregate amount of each description of persons within their respective districts." In case a marshal failed to file the returns, or any of them, or to make the return to the President, as required, he was to forfeit the sum of \$800; and "for the more effectual discovery of such offenses" the judges of the district courts were required to cause the returns of the assistants to be laid before the grand juries, for their inspection, at the next session to be held after the expiration of the time allowed for making the returns to the President.

In the case of Rhode Island and Vermont, subsequent legislation was had July 5, 1790, and March 2, 1791, respectively, by which the terms of the act providing for the first enumeration were extended to these two districts, the enumeration in Vermont to commence on the first Monday in April, 1791, and to close within five calendar months thereafter. By act of November 8, 1791, also, the time for the completion of the census in South Carolina was extended to March 1, 1792.

The assistants were to receive compensation at the rate of \$1 for every 150 persons in country districts and at the rate of \$1 for every 300 persons in cities and towns containing more than 5,000 persons; but in those divisions where, "from the dispersed situation of the inhabitants," \$1 for 150 persons should prove insufficient, the marshals were authorized, subject to the approval of the judges of their respective districts, to increase the compensation not to exceed in any case \$1 for every 50 persons returned.

The amount of compensation prescribed by the several acts for each of the marshals of the sixteen districts varied from \$100 to \$500, as follows:

- \$100—Rhode Island, Delaware.
- 200—Maine, New Hampshire, Vermont, Connecticut, New Jersey.
- 250—Kentucky, Georgia.
- 300—Massachusetts, New York, Pennsylvania, Maryland, South Carolina.
- 350—North Carolina.
- 500—Virginia.

There was no uniformity in the returns made by the several assistants, so far as the size of the sheets used is concerned, and it was not, in fact, until the fifth census, that of 1830, that the assistants made use of a printed schedule of uniform size for the purposes of the enumeration required by the several census acts. Until that census, all sorts of sizes and shapes of books and sheets were used by the assistants, the columns being ruled in ink and the headings indicated thereon, while in some instances a printed slip containing the column headings was used, following the form of the inquiries prescribed by the law.

name of the head of the family; a statement for each family of the number of free white males and females, respectively, under 10 years of age, of 10 and under 16, of 16 and under 26, of 26 and under 45, and of 45 years and upward; the number of all other free persons, except Indians not taxed, and the number of slaves.

The enumeration was to begin, as before, on the first Monday in August and to close in nine calendar months thereafter. The marshals and secretaries and their assistants were required to take an oath or affirmation before entering upon their work and were subject to the same penalties as prescribed by the law of 1790. The marshals and secretaries were required to deposit the returns of their assistants, which were to be transmitted to the marshals within the nine months specified, with the clerks of the district courts or, in the case of the Territories, the superior courts, but were required on or before September 1, 1801, to transmit their return of the aggregate amount of each description of persons to the Secretary of State, instead of to the President, as provided in 1790.

The assistants were compensated at the rate of \$1 for every 100 persons returned in country districts, instead of 150 persons, as in 1790, and \$1 for every 300 persons returned in cities and towns having upward of 3,000 persons, instead of 5,000 persons or more, as in 1790, while the increased compensation to be paid in some divisions, with the approval of the judges, was not to exceed \$1 for every 50 persons, the same as before. The assistants were also allowed \$2 for each of the two copies, which they were required to have set up at two of the most public places in their divisions, the same as in 1790, and under the same conditions of proof. The only changes in the compensation of marshals from the amount allowed in 1790 was an increase from \$100 to \$150 in the district of Rhode Island, an allowance of \$200 to the marshal of the new district of Tennessee; a similar allowance to the secretary of the territory northwest of the river Ohio, and an allowance of \$100 to the secretary of the Mississippi Territory, making in all 19 districts and territories to be canvassed.

The printed report of the second census consisted of a folio volume of seventy-four pages, which was printed by order of the House of Representatives in 1801. As in 1790, the results of the enumeration of population are shown by counties, cities, and towns in the northern and eastern districts, and by counties only in the southern sections of the country, while the returns are given for the territories by counties and townships.

The scope of the second census differed from the first only in an extension of the age distribution of the free white element of the population and in that this distribution by age was made to apply to females as well as males. An effort was made, however, by the members of two learned societies, previous to the enactment of the law



name of the head of the family; a statement for each family of the number of free white males and females, respectively, under 10 years of age, of 10 and under 16, of 16 and under 26, of 26 and under 45, and of 45 years and upward; the number of all other free persons, except Indians not taxed, and the number of slaves.

The enumeration was to begin, as before, on the first Monday in August and to close in nine calendar months thereafter. The marshals and secretaries and their assistants were required to take an oath or affirmation before entering upon their work and were subject to the same penalties as prescribed by the law of 1790. The marshals and secretaries were required to deposit the returns of their assistants, which were to be transmitted to the marshals within the nine months specified, with the clerks of the district courts or, in the case of the Territories, the superior courts, but were required on or before September 1, 1801, to transmit their return of the aggregate amount of each description of persons to the Secretary of State, instead of to the President, as provided in 1790.

The assistants were compensated at the rate of \$1 for every 100 persons returned in country districts, instead of 150 persons, as in 1790, and \$1 for every 300 persons returned in cities and towns having upward of 3,000 persons, instead of 5,000 persons or more, as in 1790, while the increased compensation to be paid in some divisions, with the approval of the judges, was not to exceed \$1 for every 50 persons, the same as before. The assistants were also allowed \$2 for each of the two copies, which they were required to have set up at two of the most public places in their divisions, the same as in 1790, and under the same conditions of proof. The only changes in the compensation of marshals from the amount allowed in 1790 was an increase from \$100 to \$150 in the district of Rhode Island, an allowance of \$200 to the marshal of the new district of Tennessee; a similar allowance to the secretary of the territory northwest of the river Ohio, and an allowance of \$100 to the secretary of the Mississippi Territory, making in all 19 districts and territories to be canvassed.

The printed report of the second census consisted of a folio volume of seventy-four pages, which was printed by order of the House of Representatives in 1801. As in 1790, the results of the enumeration of population are shown by counties, cities, and towns in the northern and eastern districts, and by counties only in the southern sections of the country, while the returns are given for the territories by counties and townships.

The scope of the second census differed from the first only in an extension of the age distribution of the free white element of the population and in that this distribution by age was made to apply to females as well as males. An effort was made, however, by the members of two learned societies, previous to the enactment of the law

governing the second census, to make the enumeration of 1800 the vehicle for ascertaining sundry facts highly interesting and important to society, and for that purpose presented to Congress two memorials (*a*) which were communicated to the Senate January 10, 1800. One of these memorials, that of the American Philosophical Society, was signed by Thomas Jefferson as its president, and begged leave to submit to the wisdom of the legislature the expediency of requiring, in addition to the table of population, as in the former act, "others presenting a more detailed view of the inhabitants of the United States, under several different aspects;" and for these purposes, suggested that a table be presented showing the number of births and the number of persons "2, 5, 10, 16, 21, and 25 years of age, and every term of five years from thence to one hundred," in order that there may be calculated therefrom "the ordinary duration of life in these States, the chances of life for every epoch thereof, and the ratio of the increase of their population; firmly believing that the result will be sensibly different from what is presented by the tables of other countries, by which we are, from necessity, in the habit of estimating the probabilities of life here;" that "for the purpose also of more exactly distinguishing the increase of population by birth and immigration," another table should contain "the respective numbers of native citizens, citizens of foreign birth, and of aliens;" and that "in order to ascertain more completely the causes which influence life and health, and to furnish a curious and useful document of the distribution of society in these States, and of the conditions and vocations of our fellow-citizens," another table should specify "the number of free male inhabitants, of all ages, engaged in business, under the following or such other descriptions as the greater wisdom of the legislature shall approve, to wit: (1) Men of the learned professions, including clergymen, lawyers, physicians, those employed in the fine arts, teachers, and scribes in general. (2) Merchants and trades, including bankers, insurers, brokers, and dealers of every kind. (3) Marines. (4) Handicraftsmen. (5) Laborers in agriculture. (6) Laborers of other descriptions. (7) Domestic servants. (8) Paupers. (9) Persons of no particular calling, living on their income; care being taken that every person be noted but once in the table, and that under the description to which he principally belongs." The other memorial, that of the Connecticut Academy of Arts and Sciences, which was signed by Timothy Dwight, its president, recited the fact that it was the belief of the memorialists "that to present and future generations it will be highly gratifying to observe the progress of population in

---

*a* A comparison of these memorials, as printed in Garfield's Report on the Ninth Census (House Reports, Forty-first Congress, second session, Vol. I, No. 3), pp. 35, 36, with the originals on file in the office of the Secretary of the Senate, shows minor differences in the text, which have been made use of in this article.

this country, and to be able to trace the proportion of its increase from native Americans and from foreigners immigrating at successive periods; to observe the progress or decline of various occupations; the effects of population, luxury, mechanic arts, the cultivation of lands, and the draining of marshes on the health and longevity of the citizens of the United States;" and that "for the accomplishment of these and other scientific objects, to which, on this extensive scale, no individual industry is competent," they begged leave to request that the next census "may comprehend the following particulars, viz, the number of children under the age of 2 years, and between the ages of 2 and 5 years; the number of persons between the ages of 16 and 30, 30 and 50, 50 and 70, 70 and 80, 80 and 90, 90 and 100, and above 100, distinguishing in each class the males from the females; the number of natives and of persons not born in the United States; the number of persons in each of the handicraft occupations; the number of merchants, cultivators of land, and professional men, distinguishing their professions; the number of married persons, of unmarried persons above 30 years of age, of widows, and widowers;" and also "that the returns from the several cities, towns, counties, or other districts may be kept distinct."

These memorials were referred by the Senate to a committee to whom the preparation of a census law had already been intrusted, but this committee, although instructed to do so, apparently made no report thereon, nor is there any mention made of these memorials in the recorded debates. (*a*)

The total population of the United States in 1800 was 5,308,483, and the total cost of the enumeration was \$66,109.04. (*b*)

### THE THIRD CENSUS: 1810.

The third census was taken under the direction of the Secretary of State, and under the same general provisions of law which governed the two preceding, but by the terms of the act of March 26, 1810, the marshals and the secretaries of the territories were required to appoint one or more assistants in each county and city, who must be residents thereof, and to assign to each assistant a certain division of their districts; but such division could not consist of more than one county or city, but might be composed of one or more towns, townships, wards, hundreds, or parishes, plainly and distinctly bounded by water courses, mountains, public roads, or other monuments.

The enumeration, which the law now stipulated was to be made "by an actual inquiry at every dwelling house, or of the head of every family within each district, and not otherwise," was to commence on

---

*a* Garfield's Report on Ninth Census (House Reports, Forty-first Congress, second session, Vol. I, No. 3), pp. 36, 37.

*b* Report of Seventh Census, viii.

the first Monday in August and to close in nine calendar months thereafter. By act of April 12, 1810, however, the time was limited to five months, but as this did not prove sufficient for the completion of the work, by act of March 2, 1811, the time for assistants to make their return was extended to the first Monday in June, and that for the marshals and secretaries to the first Monday in July, 1811.

The schedule of inquiries relating to population called for exactly the same information as at the census of 1800, and the assistants received compensation for this work at the same rates prescribed for that census, including the allowance for the two copies to be set up at two of the most public places, except that the rate allowed for increased compensation in sparsely settled areas was not to exceed \$1.25 for every 50 persons, instead of \$1, as theretofore. There were 26 districts and territories to be enumerated at this census, Tennessee being divided into two districts, and the amount of compensation allowed to the marshals and secretaries was increased in several instances over the amount received at the preceding censuses; but the highest amount allowed in any case was \$500, that paid to the marshal of the district of Virginia, as before, while the smallest compensation was \$50, that of the marshal of the District of Columbia, separately enumerated for the first time at this census.

In case there was no secretary in either of the territories, provision was made for the performance of the duties directed by the act by the governor of such territory, for which he was to receive the same compensation to which the secretary would have been entitled and was subject to the same penalties.

The marshals and secretaries, in filing the returns of their assistants with the clerks of the district and superior courts, were also required by the law of 1810 to file an attested copy of the return which they were directed to transmit to the Secretary of State.

The results of this census or enumeration of the population were printed in a long folio of 180 pages, without title-page, the summary of the population of the several districts and territories being preceded by the following caption: "Aggregate amount of each description of persons within the United States of America, and the territories thereof, agreeably to actual enumeration made according to law, in the year 1810." The various subdivisions of the population called for by the act were presented by counties and towns in the northern sections of the country (except New York, which was by counties only), and also in Ohio, Kentucky, and Georgia. The returns for the southern districts were limited, as in preceding censuses, to counties, usually, while the population of the territories was generally returned by counties and townships.

As has been noted, no additional details concerning the population were ascertained at this census, but by a later provision of law an

The printed results of the first enumeration are contained in a small octavo pamphlet of fifty-six pages, consisting of a reproduction in each case of the returns of the different marshals in the exact form as transmitted by them, the returns being preceded by a summary of the population of the United States by districts, added in the office of the Secretary of State. The returns of the marshals, as printed, although covering usually the details required by the act as to the number of each class of persons enumerated, do not present these details for cities and towns except for the districts of New Hampshire, Vermont, Massachusetts, Rhode Island, New York, and part of New Jersey, the printed results for the remaining districts being confined to counties only and a few of the larger cities and towns. For the district of Maine the return, although given for cities and towns, relates only to the total population, without any subdivision whatever. The return for the district of Massachusetts gives, in addition to the items prescribed by the census act, the number of dwelling houses and families, respectively, in each city and town covered by the report, while the marshal for the district of New York includes in his return the excess of males or females among the white population of each city and town for which report is made. A statement of the population of the Southwest Territory, as returned by the governor thereof, and based upon the reports of the captains of the several districts, is also contained in the printed report, which bears the indorsement by Thomas Jefferson, then Secretary of State, under date of October 24, 1791, as being "truly stated from the original returns deposited in the office of the Secretary of State."

The leading features of the law of 1790, and the statement of the manner in which the returns were made thereunder, have been given somewhat at length, not only because very nearly the same provisions of law governed the taking of the census until 1850, with minor modifications and extensions, but also because of its historical interest as being the first enumeration under the Constitution, and the earliest attempt anywhere to institute a periodical census. For these reasons, therefore, it may be a matter of interest to note that the result of this enumeration did not meet with favor, and much disappointment was felt at the small total reported as compared with public expectation, and, as stated by Mr. Tucker, (*a*) "the census was supposed by many to be inaccurate, and the assumed error was imputed, I know not on what evidence, to the popular notion that the people were counted for the purpose of being taxed, and that not a few had, on this account, understated to the deputy marshals the number of persons in their families." This belief was also shared by the officials of the Government, and Mr. Jefferson, the Secretary of State, was careful not only

---

*a* Tucker's Progress of the United States in Population and Wealth in Fifty Years, p. 15.

to inform our representatives abroad, in sending copies of the published tables to them, that the returns were far short of the truth, but also to supply omissions by entries "in red ink." (a) The subsequent enumerations established, however, the substantial accuracy of these results and showed that the disappointment of the public was largely due to the exaggerated estimates of colonial population which preceded the first systematic enumeration of the people.

From this summary of the law governing the first enumeration it will be observed that the returns required of the marshals were transmitted direct to the President, and that there was no central directing office clothed with authority to supervise the work of enumeration. This provision was made in the law governing the second census, and will appear later on, but at the time of the first enumeration, in 1790, it is to be presumed that the Secretary of State, acting under the direction of the President, sent to each marshal copies of the act prescribing the inquiries to be made concerning each family and the manner in which they were to make their returns. An inquiry at the State Department has revealed no further information, and the conclusion is inevitable that, in all probability, the marshals were left practically to carry out the provisions of the act in their own way.

The total population of the United States in 1790 was 3,929,214, and the entire cost of the first enumeration was \$44,377.28. (b)

#### THE SECOND CENSUS: 1800.

By the act of February 28, 1800, providing for taking the second census or enumeration of the inhabitants of the United States, the marshals of the several districts and the secretaries of the territories northwest of the river Ohio and of the Mississippi Territory, respectively, were required to cause the number of inhabitants within their respective districts to be taken, under the same general provisions of law as to division of districts, appointment of assistants, and manner of making the enumeration, as governed the first enumeration, except that the work was to be carried on under the direction of the Secretary of State, who was required, in accordance with the provisions of a section which was added to the law of 1800, to transmit to the marshals and secretaries "regulations and instructions, pursuant to this act, for carrying the same into effect, and also the forms contained therein of the schedule to be returned, and proper interrogatories to be administered by the several persons who shall be employed therein."

The schedule of inquiries, which was prescribed by the act, called for the name of the county, parish, township, town, or city where the family resides (which did not appear in the schedule for 1790); the

<sup>a</sup> Harper's First Century of the Republic, chap. vii.

<sup>b</sup> Report of Seventh Census, viii.

name of the head of the family; a statement for each family of the number of free white males and females, respectively, under 10 years of age, of 10 and under 16, of 16 and under 26, of 26 and under 45, and of 45 years and upward; the number of all other free persons, except Indians not taxed, and the number of slaves.

The enumeration was to begin, as before, on the first Monday in August and to close in nine calendar months thereafter. The marshals and secretaries and their assistants were required to take an oath or affirmation before entering upon their work and were subject to the same penalties as prescribed by the law of 1790. The marshals and secretaries were required to deposit the returns of their assistants, which were to be transmitted to the marshals within the nine months specified, with the clerks of the district courts or, in the case of the Territories, the superior courts, but were required on or before September 1, 1801, to transmit their return of the aggregate amount of each description of persons to the Secretary of State, instead of to the President, as provided in 1790.

The assistants were compensated at the rate of \$1 for every 100 persons returned in country districts, instead of 150 persons, as in 1790, and \$1 for every 300 persons returned in cities and towns having upward of 3,000 persons, instead of 5,000 persons or more, as in 1790, while the increased compensation to be paid in some divisions, with the approval of the judges, was not to exceed \$1 for every 50 persons, the same as before. The assistants were also allowed \$2 for each of the two copies, which they were required to have set up at two of the most public places in their divisions, the same as in 1790, and under the same conditions of proof. The only changes in the compensation of marshals from the amount allowed in 1790 was an increase from \$100 to \$150 in the district of Rhode Island, an allowance of \$200 to the marshal of the new district of Tennessee; a similar allowance to the secretary of the territory northwest of the river Ohio, and an allowance of \$100 to the secretary of the Mississippi Territory, making in all 19 districts and territories to be canvassed.

The printed report of the second census consisted of a folio volume of seventy-four pages, which was printed by order of the House of Representatives in 1801. As in 1790, the results of the enumeration of population are shown by counties, cities, and towns in the northern and eastern districts, and by counties only in the southern sections of the country, while the returns are given for the territories by counties and townships.

The scope of the second census differed from the first only in an extension of the age distribution of the free white element of the population and in that this distribution by age was made to apply to females as well as males. An effort was made, however, by the members of two learned societies, previous to the enactment of the law

governing the second census, to make the enumeration of 1800 the vehicle for ascertaining sundry facts highly interesting and important to society, and for that purpose presented to Congress two memorials (*a*) which were communicated to the Senate January 10, 1800. One of these memorials, that of the American Philosophical Society, was signed by Thomas Jefferson as its president, and begged leave to submit to the wisdom of the legislature the expediency of requiring, in addition to the table of population, as in the former act, "others presenting a more detailed view of the inhabitants of the United States under several different aspects;" and for these purposes, suggested that a table be presented showing the number of births and the number of persons "2, 5, 10, 16, 21, and 25 years of age, and every term of five years from thence to one hundred," in order that there may be calculated therefrom "the ordinary duration of life in these States, the chances of life for every epoch thereof, and the ratio of the increase of their population; firmly believing that the result will be sensibly different from what is presented by the tables of other countries, to which we are, from necessity, in the habit of estimating the probabilities of life here;" that "for the purpose also of more exactly distinguishing the increase of population by birth and immigration another table should contain "the respective numbers of native citizens, citizens of foreign birth, and of aliens;" and that "in order to ascertain more completely the causes which influence life and health, and to furnish a curious and useful document of the distribution of society in these States, and of the conditions and vocations of our fellow-citizens," another table should specify "the number of free male inhabitants, of all ages, engaged in business, under the following or such other descriptions as the greater wisdom of the legislature shall approve, to wit: (1) Men of the learned professions, including clergymen, lawyers, physicians, those employed in the fine arts, teachers, and scribes in general. (2) Merchants and trades, including bankers, insurers, brokers, and dealers of every kind. (3) Marine (4) Handicraftsmen. (5) Laborers in agriculture. (6) Laborers in other descriptions. (7) Domestic servants. (8) Paupers. (9) Persons of no particular calling, living on their income; care being taken that every person be noted but once in the table, and that under the description to which he principally belongs." The other memorial, that of the Connecticut Academy of Arts and Sciences, which was signed by Timothy Dwight, its president, recited the fact that it was the belief of the memorialists "that to present and future generations it will be highly gratifying to observe the progress of population

<sup>a</sup> A comparison of these memorials, as printed in Garfield's Report on the Ninth Census (House Reports, Forty-first Congress, second session, Vol. I, No. 3), pp. 36, with the originals on file in the office of the Secretary of the Senate, shows minor differences in the text, which have been made use of in this article.

this country, and to be able to trace the proportion of its increase from native Americans and from foreigners immigrating at successive periods; to observe the progress or decline of various occupations; the effects of population, luxury, mechanic arts, the cultivation of lands, and the draining of marshes on the health and longevity of the citizens of the United States;" and that "for the accomplishment of these and other scientific objects, to which, on this extensive scale, no individual industry is competent," they begged leave to request that the next census "may comprehend the following particulars, viz, the number of children under the age of 2 years, and between the ages of 2 and 5 years; the number of persons between the ages of 16 and 30, 30 and 50, 50 and 70, 70 and 80, 80 and 90, 90 and 100, and above 100, distinguishing in each class the males from the females; the number of natives and of persons not born in the United States; the number of persons in each of the handicraft occupations; the number of merchants, cultivators of land, and professional men, distinguishing their professions; the number of married persons, of unmarried persons above 30 years of age, of widows, and widowers;" and also "that the returns from the several cities, towns, counties, or other districts may be kept distinct."

These memorials were referred by the Senate to a committee to whom the preparation of a census law had already been intrusted, but this committee, although instructed to do so, apparently made no report thereon, nor is there any mention made of these memorials in the recorded debates. (*a*)

The total population of the United States in 1800 was 5,308,483, and the total cost of the enumeration was \$66,109.04. (*b*)

#### THE THIRD CENSUS: 1810.

The third census was taken under the direction of the Secretary of State, and under the same general provisions of law which governed the two preceding, but by the terms of the act of March 26, 1810, the marshals and the secretaries of the territories were required to appoint one or more assistants in each county and city, who must be residents thereof, and to assign to each assistant a certain division of their districts; but such division could not consist of more than one county or city, but might be composed of one or more towns, townships, wards, hundreds, or parishes, plainly and distinctly bounded by water courses, mountains, public roads, or other monuments.

The enumeration, which the law now stipulated was to be made "by an actual inquiry at every dwelling house, or of the head of every family within each district, and not otherwise," was to commence on

*a* Garfield's Report on Ninth Census (House Reports, Forty-first Congress, second session, Vol. I, No. 3), pp. 36, 37.

*b* Report of Seventh Census, viii.

the first Monday in August and to close in nine calendar months thereafter. By act of April 12, 1810, however, the time was limited to five months, but as this did not prove sufficient for the completion of the work, by act of March 2, 1811, the time for assistants to make their return was extended to the first Monday in June, and that for the marshals and secretaries to the first Monday in July, 1811.

The schedule of inquiries relating to population called for exactly the same information as at the census of 1800, and the assistants received compensation for this work at the same rates prescribed for that census, including the allowance for the two copies to be set up at two of the most public places, except that the rate allowed for increased compensation in sparsely settled areas was not to exceed \$1.25 for every 50 persons, instead of \$1, as theretofore. There were 26 districts and territories to be enumerated at this census, Tennessee being divided into two districts, and the amount of compensation allowed to the marshals and secretaries was increased in several instances over the amount received at the preceding censuses; but the highest amount allowed in any case was \$500, that paid to the marshal of the district of Virginia, as before, while the smallest compensation was \$50, that of the marshal of the District of Columbia, separately enumerated for the first time at this census.

In case there was no secretary in either of the territories, provision was made for the performance of the duties directed by the act by the governor of such territory, for which he was to receive the same compensation to which the secretary would have been entitled and was subject to the same penalties.

The marshals and secretaries, in filing the returns of their assistants with the clerks of the district and superior courts, were also required by the law of 1810 to file an attested copy of the return which they were directed to transmit to the Secretary of State.

The results of this census or enumeration of the population were printed in a long folio of 180 pages, without title-page, the summary of the population of the several districts and territories being preceded by the following caption: "Aggregate amount of each description of persons within the United States of America, and the territories thereof, agreeably to actual enumeration made according to law, in the year 1810." The various subdivisions of the population called for by the act were presented by counties and towns in the northern sections of the country (except New York, which was by counties only), and also in Ohio, Kentucky, and Georgia. The returns for the southern districts were limited, as in preceding censuses, to counties, usually, while the population of the territories was generally returned by counties and townships.

As has been noted, no additional details concerning the population were ascertained at this census, but by a later provision of law an

attempt was made, for the first time, to gather industrial statistics. This was undertaken in accordance with the terms of the act of May 1, 1810, which, after making (in section 1) certain changes in the form of the oath or affirmation required of marshals, secretaries, and assistants, provided in section 2 as follows:

That it shall be the duty of the several marshals, secretaries, and their assistants aforesaid, at the time for taking the census or enumeration aforesaid, to take, under the direction of the Secretary of the Treasury, and according to such instructions as he shall give, an account of the several manufacturing establishments and manufactures within their several districts, territories, and divisions. The said assistants shall make return of the same to the marshals or secretaries of their respective districts or territories, and the said marshal and secretary shall transmit the said returns and abstracts thereof to the Secretary of the Treasury, at the same times at which they are by this act, and the several acts to which this act is an addition, required respectively to make their return of said enumeration to the Secretary of State; for the performance of which additional services they shall respectively receive such compensation as shall hereafter be provided by law.

No schedule was prescribed by the law, nor was the nature of the inquiries to be made indicated, but were wholly subject to the discretion of the Secretary of the Treasury. For the further carrying out of this work, it was provided by a resolution passed March 19, 1812:

That the Secretary of the Treasury be directed to employ a person to digest and reduce to such form as shall be deemed most conducive to the interests of the United States, a statement of the number, nature, extent, situation, and value of the arts and manufactures of the United States, together with such other details, connected with these subjects, as can be made from the abstracts and other documents and returns, reported to him by the marshals and other persons employed to collect information in conformity to the second section of the act of the first of May, one thousand eight hundred and ten, and such other information as has been or may be obtained, which the subject will admit of; and that he report the same to Congress.

For making this digest of manufactures, the sum of \$2,000 was authorized by the act of May 16, 1812, while the sum of \$40,000 was allowed for the compensation of the marshals and assistants for taking the account of the manufactures, but without statutory provisions for its apportionment.

The statement of manufactures called for by this resolution relates to but four or five items, namely, the kind, quantity, and value of goods manufactured, the number of establishments, in some cases, and the number of machines of various kinds used in certain classes of manufactures, as shown by the printed report, which contains more or less incomplete returns covering these items for considerably more than 200 kinds of goods or things considered, and including several items relating to products other than those of manufactures, but principally agricultural. This report, a quarto volume of 233 pages,

was published May 30, 1813, under the following exceedingly comprehensive title :

A Statement of the Arts and Manufactures of the United States of America, exhibiting—

I. A collection of facts, evincing their benefactions to agriculture, commerce, navigation, and the fisheries, and their subserviency to the public defense, with an indication of certain existing modes of conducting them, peculiarly important to the United States.

II. A collection of additional facts, tending to show the practical foundation, actual progress, condition, and establishment of the American arts and manufactures, and their connection with the wealth and strength of the United States. Together with—

One series of tables of the several branches of American manufactures, exhibiting them by States, Territories, and districts, so far as they were returned in the reports of the marshals and of the secretaries of the territories, and their respective assistants, in the autumn of the year 1810; together with similar returns of certain doubtful goods, productions of the soil, and agricultural stock, so far as they have been reported; and another—

Series of tables of the several branches of American manufactures, exhibiting them in every county of the Union, so far as they were returned in the reports of the marshals, and of the secretaries of the territories and their respective assistants, in the autumn of the year 1810; which tables were prepared in execution of an instruction of Albert Gallatin, esquire, Secretary of the Treasury, given by him in obedience to a resolution of Congress of the 19th day of March, 1812.

Concerning the tables, Mr. Tench Coxe, who was charged by the Secretary of the Treasury with the duty of making the digest, says (p. xxvii):

In the tables which form the third and fourth parts of this statement is contained the result of this first attempt of an extensive and populous country, or perhaps of any country, to ascertain in detail the facts which constitute and display the actual condition of its manufactures. The duty of collecting the information by the marshals and secretaries was additional and secondary to the periodical enumeration of the people, and required a longer time than was allowed for such an enumeration, enjoined as a basis of distribution of constitutional power. The period of the two measures was not sufficient for the correspondence between the superior and subordinate officers, which would have produced more perfect details and greater uniformity and perspicuity. It may, however, be affirmed that the tables contain a great number and variety of clear indications of the state of the manufacturing branch of the national industry, and a mass of positive evidence upon the subject, in relation to the eastern, northern, middle, southern, Atlantic, and western *sections or grand divisions* of the country, with respect to the forms or modes of the manufactures which have grown up, the raw materials upon which they operate, a very considerable portion of the value to which they have arisen, very useful data for the comparative value of *internal commerce or manufactures and external commerce or navigation, and foreign trade*, and much elucidation of the operations of manufacturing industry upon the commercial and the landed interests, and upon the public safety.

Concerning the work of the marshals and assistants in this connection, Mr. Coxe further says (p. xxv):

Though many of the officers and assistants have performed this new and difficult service with much zeal and intelligence, yet various causes have concurred to occasion *numerous* and *very considerable* imperfections and omissions in returns from cities, towns, villages, townships, hundreds, counties, and, as to valuable articles and branches, from States, to be observable. In these first sets of tables it has not been thought best to supply those defects by detailed and diversified estimates, which must be erroneous and might be sanguine.

In submitting a summary of the manufactures by States, Territories, and districts, several footnotes are used, to the general effect that, in the opinion of the marshals of the several States referred to, the values and amounts were much more than as reported, and this summary is followed by "an estimate of the value of the manufactures of the United States of America, excluding the doubtful articles, digested by States, districts, and territories, formed by a consideration of all the reported details and by a valuation of the manufactures which are entirely omitted or imperfectly returned, for the year 1810," giving an estimated total for the whole country of \$172,762,676. The total of "the goods made in the United States which are of a doubtful nature in relation to their character as *manufactures* or agricultural, so far as they have been returned by the marshals and the secretaries of the territories, for the year 1810," was \$25,850,795; or, in all, \$198,613,471.

A further estimate is given, under date of May 1, 1813, by Mr. Coxe (p. liii), covering the year 1813, as follows:

In the course of the numerous and diversified operations, occasioned by the deliberate execution of this digest and statement, constant and close attention has been applied to those facts, which have occurred throughout the Union, since the autumn of the year 1810, from which a judgment of the condition of the manufactures of the United States, in the current year 1813, might be safely formed. It has resulted in a thorough conviction that, after allowing for the interruptions to the importations of certain raw materials, the several branches of manufactures and the States, territories, and districts have advanced, upon a medium, at the full rate of 20 per centum, which would give an aggregate for this year of 207,315,211 dollars. In this increase *the State of New York* is considered to have most largely partaken, especially by her joint stock companies, and in consequence of the migrations thither from the Eastern States. But as it is best to make ample allowances for some manifest repetitions of articles which are inextricably involved in the subordinate returns, a sincere and well-reflected final opinion is respectfully offered, that the whole people of the United States, taken in 1813 at 8,000,000 of persons, will actually make within this year manufactured goods (exclusively of the *doubtful*) to the full value of 200,000,000 of dollars, or 45,000,000 of pounds, of sterling money.

It is apparent, therefore, that the published details of manufactures by States and counties have little value as representing the aggregate amount of manufactures at this period for any section, but they do afford, as stated by Mr. Coxe, "a great number and variety of clear indications of the state of the manufacturing branch of the national industry" at that time.

The total population returned at the census of 1810 was 7,239,881, and the total cost was \$178,444.67, of which, approximately, \$40,000 was expended on account of the return relating to manufactures.<sup>(a)</sup>

#### THE FOURTH CENSUS: 1820.

The fourth census was taken under the direction of the Secretary of State, in accordance with the provisions of the act of March 14, 1820, which adhered very closely to the organic act of 1790, as modified by the changes incorporated in the laws governing the second and third censuses, and the addition of two sections which are explained later on. The duty of taking the census was charged upon the marshals of the several districts and territories of the United States, who were required to divide their districts and appoint assistants in the same manner as at the census of 1810; but the law of 1820 provided, in addition, that where a State comprised two districts, and a part of a county should lie in each district, such county should be considered as belonging to that district in which the court-house of said county was situated.

The enumeration was to commence on the first Monday in August, and was to close within six calendar months, but by act of March 3, 1821, the time prescribed for the completion of the work by marshals and assistants was enlarged to September 1, 1821. It was further required that the enumeration should be made, as in 1810, by an actual inquiry at every dwelling house, or of the head of every family within each district, and not otherwise, and the assistants were required to take an oath or affirmation before entering upon their work and were subject to the same penalties as heretofore. The marshals were directed by the act to file with the returns of their assistants an attested copy of the return which the law required should be made to the Secretary of State, the same as in 1810, but they were now subject to a penalty of \$1,000, instead of \$800, as in preceding censuses.

The assistants were to receive compensation at the same rates prescribed in the law of 1810, including that allowed for the copies of their schedule to be set up for the inspection of all concerned; but before any assistant should be entitled to receive such compensation, he was required by the law of 1820 to take and subscribe to an oath or affirmation to the effect that the number of persons set forth in his return has been ascertained by actual inquiry at every dwelling house, or of the head of every family, in exact conformity with the

---

<sup>a</sup> Report of Seventh Census, viii.

provisions of the act, and that he had, in every respect, fulfilled the duties required of him by the act, to the best of his abilities, and that the return aforesaid is correct and true, according to the best of his knowledge and belief. In addition, provision was made by the act of 1820, that where the superficial content of any county or parish exceeded 40 miles square, and the number of inhabitants in said parish or county did not exceed 2,500, the marshal or assistants should be allowed, with the approbation of the district or territorial judges, further compensation, provided the same did not exceed \$3 for every 50 persons returned. The number of districts and territories to be enumerated was increased to 31 at this census, New York, Pennsylvania, and Virginia, as well as Tennessee, each being divided into two districts, and the compensation of the marshals, which was fixed by the act, varied from \$50, for the marshal of the District of Columbia, to \$350, for the marshal of the district of North Carolina.

The schedule of inquiries called for the same age distribution of the free white population, male and female, as in 1800 and 1810, with the addition in 1820 of the number of free white males between 16 and 18 years. It also provided for a separation of the number of free colored persons and of slaves, respectively, by sex, according to the number under 14 years of age, of 14 and under 26, of 26 and under 45, and of 45 and upward, with a statement of the number of "all other persons, except Indians not taxed." An inquiry was also contained in the schedule, for the first time, as to the number of foreigners not naturalized, and the number of persons (including slaves) engaged in agriculture, commerce, and manufactures.

Not deterred by the poor success of the attempt to secure industrial statistics in 1810, this requirement was again made a part of the law of 1820, under the provisions of which it was made "the duty of the several marshals and their assistants, at the time for taking the said census, to take, under the direction of the Secretary of State, and according to such instructions as he shall give, and such forms as he shall prescribe, an account of the several manufacturing establishments, and their manufactures, within their several districts, territories, and divisions." The returns relating to manufactures were to be sent by the assistants to the marshals of their respective districts or territories, and were to be in turn transmitted by them, with abstracts thereof, to the Secretary of State at the same time at which they were required to make their returns of the enumeration; and for this additional service they were to receive "not exceeding 20 per centum in addition to the sums allowed by this act, to be apportioned in proportion to the services rendered, under the direction of the Secretary of State."

It was further provided by a resolution approved March 30, 1822, that a digest of the returns of the several manufacturing establishments should be made under the direction of the Secretary of State,

and that he should cause 1,500 copies of said digest to be printed, subject to the disposition of Congress.

The questions to be asked concerning each manufacturing establishment were 14 in number, and related to the nature and names of the articles manufactured; market values of the articles annually manufactured; kind, quantity, and cost of raw materials annually consumed; the number of men, women, and boys and girls employed; the whole quantity and kind of machinery, and the quantity of machinery in operation; amount of capital invested; amount paid annually in wages; amount of the contingent expenses, and general observations.

The report of the census of population consisted of a folio of 160 pages, while that containing the digest of the accounts of manufacturing establishments consisted of a folio of 100 pages.

The presentation of the details of age and sex for each class of the population enumerated is given for the several cities and towns in each county in the northern and eastern districts as at the preceding censuses, but in many districts there is no recapitulation by counties, while in two districts (New Hampshire and southern New York) the summary by counties is given, but that for the entire district, which is common to the other districts, is omitted. In the southern districts the presentation is confined to counties usually, but in Maryland it is made by counties and election districts, in Delaware by hundreds, and in South Carolina by districts only.

The report on manufactures presents the results concerning manufacturing establishments, so far as returned in each district and territory, by counties, but the results are not summarized for each district, nor does the report contain any aggregate statement for the entire country—an omission due, doubtless, to the incompleteness of the returns, arising partly from the insufficient compensation allowed for the collection of the returns and partly from the neglect or refusal of manufacturers to supply the necessary information.

The report on population, also, contains, for the first time, copies of the instructions and forms prepared by the Secretary of State for the use of the marshals and assistants in their work.

In making the distribution of the reports the Secretary of State was authorized by the resolution of February 4, 1822, to send one copy to each of the colleges and universities of the United States, as well as to the members of Congress, officers of the Government, and judges of the United States courts.

The total population of the United States in 1820 was 9,633,822.

The total cost of the fourth census was \$208,525.99, subdivided as follows: For enumerating the inhabitants, \$195,357.56; for printing, \$11,014.35; for postage, \$1,229.08; for temporary clerk hire at the Department of State, \$925. (*a*)

---

*a* Report of Seventh Census, viii.

**THE FIFTH CENSUS: 1830.**

The census in 1830 was also taken under the direction of the Secretary of State, but, prior to the passage of the census act, President Adams, in his fourth annual message to Congress, dated December 28, 1828, (*a*) suggested the desirability of commencing the enumeration from an earlier period of the year than the 1st of August, the most favorable season being the spring, and, also, that the columns of age, hitherto confined to a few periods, should be extended, commencing from infancy, in intervals of ten years, to the utmost boundaries of life. Changes embodying these suggestions were made in the act of March 23, 1830, which provided for taking the fifth census. Under the provisions of this act the marshals were directed to appoint one or more assistants in each county and city, and to give to each assistant a certain division, which should not consist, in any case, of more than one county, but could include one or more towns, townships, wards, hundreds, precincts, or parishes, which should be plainly and distinctly bounded. In case a part of a county should lie in each of two districts, where a State was divided, it was adjudged to belong to the district in which the court-house was located, the same as in 1820.

The enumeration was to be made by an actual inquiry by the marshals or assistants at every dwelling house, or, as the law now stated, by "personal" inquiry of the head of every family, and was to commence on the 1st day of June (instead of the first Monday in August, as heretofore) and to be completed within six calendar months thereafter. This change made the period from the first Monday in August, 1820, to June 1, 1830, nine years and ten months only, instead of the full ten years, and gave a slightly less percentage of increase than it would have been for the full decade. The assistants were required within six months, or on or before December 1, 1830, to transmit to the marshals of their respective districts or territories two copies of their return, instead of one, as heretofore, while the marshals were directed by the act to file one copy of these returns, together with an attested copy of the return which they were required to make to the Secretary of State, with the clerks of the courts of their respective districts or territories, and to transmit the other copy of the returns of their assistants, and also the aggregate amount of each description of persons within their respective districts or territories, on or before February 1, 1831, to the Secretary of State. It was found necessary, however, to extend the time for the completion of the work, and by the act of February 3, 1831, the assistants were given until June 1 and the marshals until August 1, 1831, or a total period of fourteen months from the commencement of the enumeration.

---

*a* Messages and Papers of the Presidents, Vol. 2, p. 420.

The assistants were required to take an oath or affirmation before entering upon their work, and also upon its completion, as to the making of the enumeration by actual inquiry, and they were subject to the same penalties as were prescribed at the census of 1820. But in the case of the marshals it was provided, in addition to the penalties prescribed by the law of 1820, "that, if any marshal, in any district within the United States or Territories, shall, directly or indirectly, ask, demand, or receive, or contract to receive, of any assistants to be appointed by him under this act, any fee, reward, or compensation for the appointment of such assistant to discharge the duties required of such assistant under this act, or shall retain from such assistant any portion of the compensation allowed to the assistant by this act, the said marshal shall be deemed guilty of a misdemeanor in office, and shall forfeit and pay the amount of five hundred dollars for each offense, to be recovered by suit or indictment in any circuit or district court of the United States or the Territories thereof, one-half to the use of the Government and the other half to the informer; and all contracts which may be made in violation of this law shall be void, and all sums of money or property paid may be recovered back by the party paying the same, in any court having jurisdiction of the same."

The inquiries at this census related to population only, the provision for the collection of industrial statistics being omitted, and for the first time a printed schedule of uniform size was used. This schedule, which was about 18 inches wide by 15 inches long, had the inquiries printed at the heads of the columns and provided spaces for the entry of the returns for 28 families to each page. It called for a division of the free white population of each sex according to the number under 5 years of age, 5 to 10, 10 to 15, 15 to 20, 20 to 30, 30 to 40, 40 to 50, 50 to 60, 60 to 70, 70 to 80, 80 to 90, 90 to 100, and 100 years and upward; a classification of slaves and free colored persons, respectively, according to the number of each sex under 10 years of age, 10 to 24, 24 to 36, 36 to 55, 55 to 100, and 100 years and upward; the number of white persons and of "slaves and colored persons," included in the foregoing classifications, under 14 years of age, 14 and under 25, and 25 years and upward, respectively, who were deaf and dumb, but without distinction of sex in either case, and also the number of each of the two classes named who were blind, but without distinction of sex or age; and a statement, finally, for white persons only, of the number who were aliens, that is, foreigners not naturalized, the same as in 1820.

The compensation of assistants, of whom there were approximately 1,519, was increased at this census to \$1.25 for every 100 persons returned in the country, and in cities and towns containing more than 3,000 inhabitants at the rate of \$1.25 per 100 up to 3,000 persons and at the rate of \$1.25 for every 300 persons over 3,000 residing in such

cities or towns; and in those districts where the rate was increased, with the approbation of the judges, it was not to exceed \$1.75 for every 50 persons returned. The allowance to each assistant for making the two copies of their return to be set up at two of the most public places within their district was also increased from \$2 to \$5 for each copy. A further allowance was also made in certain cases where the superficial content of any county or parish exceeded 20 miles square, and the number of inhabitants was not more than 3,000, but this allowance was not to exceed, in any case, \$4 for every 50 persons returned, and also when any county or parish exceeded 40 miles square, and the population was not more than 3,000, a like allowance was to be made, but not to exceed \$6 for every 50 persons returned. There were 36 districts and territories to be enumerated in 1830, and, with few exceptions, the compensation of the marshals was increased, \$50 in most cases, and, in a few cases, \$100, the highest amount paid being \$400, that to the marshal of the district of Ohio, and the lowest amount \$100, that to the marshal of the District of Columbia and to each of the four marshals in the Territory of Florida. The marshals were further allowed by the act of 1830 the amount of postage paid by them in connection with their duties under said act, and it was also provided by the act of April 30, 1830, that papers relating to the census should be transmitted by mail without regard to the weight of the package.

As in 1820, the Secretary of State was directed to print the returns for the use of the Congress, 3,000 copies of the returns of the fifth census being authorized, and in their distribution it was provided that the several colleges and incorporated historical societies and athenæums should each receive one copy.

By the terms of the act governing the taking of the census of 1830, the President was authorized to have made "a careful revision of the statements heretofore transmitted to Congress of all former enumerations of the population of the United States and their Territories, and to cause an abstract of the aggregate amount of population in each State and Territory to be printed by the printer to Congress (designating the number of inhabitants of each description by counties or parishes) to the number of two thousand copies," and for which the sum of \$2,000 was appropriated.

This revision was not carefully made, however, and General Walker, the Superintendent of the ninth and tenth censuses, says: "So hastily and heedlessly was this work performed that it must be regarded as absolutely valueless. Many pages of that republication would, by merely noting the necessary corrections, be almost as much disfigured as the worst proof of statistical matter ever seen in a printing house." (a)

---

a Report on Population and Social Statistics, Ninth Census, xliv.

Under the provisions of the act of March 23, 1830, the clerks of the district and superior courts were required, within thirty days after the original returns of the assistants had been laid before the grand juries for their inspection, to transmit and deliver all such original returns so filed to the Department of State; but this provision was repealed later by the second section of the act of February 3, 1831.

By the terms of the resolution of May 28, 1830, the said clerks were further directed to transmit to the Secretary of State the several returns of the enumeration of the inhabitants of the United States, filed in their respective offices by direction of the several acts providing for the first four censuses or enumerations.

By the third section of the act of February 3, 1831, it was made the duty of the Secretary of State "to note all the clerical errors in the returns of the marshals and assistants, whether in the additions, classification of inhabitants, or otherwise, and cause said notes to be printed, with the aggregate returns of the marshals, for the use of Congress."

In the revision of the returns of the fifth census, 43 clerks were temporarily employed in the office of the Secretary of State.

The printed results of the fifth census are contained in a large folio volume of 163 pages; but the report was so badly printed that it was republished the same year by direction of Congress under the immediate supervision of the Secretary of State. The two reports were bound together in one volume, and were preceded by a statement of the population of the several districts of the United States at the censuses of 1790, 1800, 1810, 1820, by counties, followed by a recapitulation by districts. The volume also contains copies of the circulars sent to the marshals by the Secretary of State concerning their duties under the census act, and the instructions and forms to be used in the enumeration.

The results of the fifth census or enumeration are presented, as heretofore, by counties and towns in the northern districts, and by counties only in the southern districts; and in the republished returns some attempt at uniformity of presentation is made by supplying the recapitulations by counties, which were omitted in the first publication in many of the northern districts.

The total population of the United States in 1830 was 12,866,020, including 5,318 persons on public ships in the service of the United States, not credited to any State or Territory.

The total cost of the fifth census was \$378,545.13, subdivided as follows: For enumerating the inhabitants, \$322,343; for printing, \$18,473.32; for postage, \$7,097.79; for temporary clerk hire at the Department of State, \$11,997.33; for contingent and incidental expenses, including stationery, office furniture, laborers, freight, transportation, binding, etc., \$18,633.69. (a)

The whole amount of money appropriated for this census was \$600,000, but by act of April 24, 1830, \$200,000 of this amount, not being required, was ordered to be passed to the surplus fund at the close of the year 1830.

#### THE SIXTH CENSUS: 1840.

The sixth census was taken under the direction of the Secretary of State, and was governed by the same general provisions of law as were in effect in 1830. The marshals were required to appoint one or more assistants in each county and city and to divide their districts or territories into suitable divisions, which should not comprise more than one county, but could consist of one or more towns, townships, wards, hundreds, precincts, or parishes, plainly and distinctly bounded.

In accordance with the provisions of the act of March 3, 1839, as amended by the act of February 26, 1840, by which certain discrepancies in the first act were rectified, the enumeration was to be made by actual or personal inquiry, and was to commence on the 1st day of June, 1840, and to be completed within five months. The assistants were required within the five months, or on or before November 1, 1840, to transmit two copies of their returns to the marshals, who were in turn required to file one copy and an attested copy of their return to the Secretary of State with the clerks of the district or superior courts, and to transmit on or before December 1, 1840, to the Secretary of State one copy of the returns of their assistants and the return of the aggregate amount of each description of persons. The time for the completion of the work by the assistants and marshals was extended, by act of January 14, 1841, to May 1 and June 1, 1841, respectively, and these limits were further extended, by the act of September 1, 1841, to December 1, 1841, and January 1, 1842, respectively. It was also provided by the latter act that a reenumeration should be made in the county of Montgomery, Md., before the 1st day of October, 1841, to be taken as of June 1, 1840, but that this corrected return should not delay the printing of the census, and should be printed separately.

The marshals and assistants were required to take and subscribe to the same forms of oath or affirmation as in 1830, and in case of failure or neglect to perform properly their duties, or in the case of a false return, they were subject to the same penalties, including the provision making it a misdemeanor for a marshal to receive, directly or indirectly, any fee or reward for the appointment of any of his assistants.

By the terms of the supplementary act of February 26, 1840, it was made lawful for a marshal to take part in the enumeration of a portion of his district, and upon his so doing, he was to have the benefit

of the compensation allotted therefor, as if it had been done by an assistant.

No form of schedule for the enumeration of the population was prescribed by the act providing for the census of 1840, being presumably left to the discretion of the Secretary of State, although the law stipulated the nature of the inquiries to be made. The schedule which was provided for the use of the marshals and assistants followed very closely the size and form of the schedule used in 1830, and called for the same subdivisions of the population as to color, sex, and age as at that census, together with the inquiry as to the number of white persons and of free colored and slaves who were deaf and dumb or blind, the same as in 1830, with the exception that the deaf and dumb among the free colored and slave population were not subdivided in 1840 according to the three age periods specified in 1830. In addition, a further inquiry was made for each of these two classes of the population as to the number of insane and idiots, who were, respectively, at public or private charge, and the schedule also called for the number of persons in each family employed in each of seven classes of occupations, namely, mining, agriculture, commerce, manufactures and trades, navigation of the ocean, navigation of canals, lakes, and rivers, and learned professions and engineers.

It was also provided by section 13 of the act of March 3, 1839, that the marshals and assistants should also take "a census of all persons receiving pensions from the United States for Revolutionary or military services, stating their names and ages," and that they also should "collect and return in statistical tables, under proper heads, according to such forms as shall be furnished, all such information in relation to mines, agriculture, commerce, manufactures, and schools, as will exhibit a full view of the pursuits, industry, education, and resources of the country, as shall be directed by the President of the United States;" and it was also made the duty of the Secretary of State, under the direction of the President, to prepare the necessary forms, regulations, and instructions for carrying out this provision of the census act. The inquiries to be made concerning the names and ages of the pensioners for Revolutionary or military services and the statement concerning schools were incorporated in the schedule relating to the population, and, in the latter case, called for the number of universities or colleges, of academies and grammar schools, and of primary and common schools, respectively; the number of students or scholars in each of these three classes of schools; the number of scholars at public charge, and the number of white persons over 20 years of age who could not read and write.

This provision of the act is also responsible for the inquiries concerning the occupations of the people, which were inserted in the schedule relating to the population as the complement, no doubt, of

the data to be obtained for the purpose of determining the value and importance of the commercial and industrial interests of the country at that time. For the collection of this information a separate schedule was provided, which prescribed by name the classes of establishments or products concerning which a return was to be made "in statistical tables" by the marshals and their assistants. These inquiries related usually to the quantity or value produced (or both, in some cases), number of employees, amount of capital invested, and number of establishments (in certain cases), for certain specified products of mining, of the fisheries, and of manufactures; the quantity or value of certain specified products of agriculture or of the forest; the number of commercial and commission houses, and of retail dry goods, grocery, and other stores, with the capital invested therein; the number of men employed by butchers, packers, etc., and in internal transportation, and the number of men employed, capital invested, and number of establishments engaged in the lumber trade.

The compensation of assistants, of whom there were, approximately, 2,048, was materially increased at this census, they receiving \$2 for every 100 persons returned in country districts, and in cities and towns of 3,000 inhabitants or more, at the rate of \$2 for each 100 persons up to 3,000 persons, and at the rate of \$2 for every 300 persons over 3,000, while in those divisions where \$2 for 100 persons would not be sufficient compensation, they could receive as high as \$2.50 for every 50 persons returned. In those cases where the superficial content of a county or parish exceeded, in either case, 20 or 40 miles square, and the number of inhabitants did not exceed 3,000, the same provision for further allowance was made as in 1830, but by the terms of the supplemental act of February 26, 1840, the assistants, instead of receiving \$5 for each of the two copies of their return of population to be made and set up for the inspection of all concerned, as in 1830 and as originally provided by the act of March 3, 1839, were allowed "at the rate of \$5 for ten sheets, or in that proportion for a less number, and at the rate of 30 cents for every sheet over ten in the copy of the return." In all cases, also, where the assistants had performed the duties and made the returns of manufacturing and other industrial statistics, as prescribed by section 13 of the act of March 3, 1839, they were allowed therefor a sum equal to 20 per cent of the allowance made to them respectively for the enumeration. The compensation of the marshals of the several districts and territories, now numbering 39 in all, was also increased very materially, and the amounts prescribed varied from \$50 for each of the three districts in the Territory of Florida to \$500 for the district of Ohio.

The marshals were allowed the amount of the postage expended by them in connection with their work, and the papers relating to the sixth census were carried in the mails regardless of their weight, and

for the transmission of such papers between the marshals and their assistants periodical pamphlet postage only was charged.

The Secretary of State was authorized to have printed 10,000 copies of the aggregate returns received from the marshals, including the census of pensioners and the statistical tables of manufactures and other industries, and was further directed to cause to be noted all the clerical errors in the returns of the marshals and assistants, whether in the additions, classification of inhabitants, or otherwise, and that he should direct to be printed the corrected aggregate returns only. He was also directed by the act of September 1, 1841, to cause to be printed 20,000 copies of a compendium or abridgement of the census, by counties and principal towns; and by the resolution of February 24, 1843, providing for the distribution of the census reports and compendium, he was directed to send one copy of each to universities, colleges, and literary institutions entitled to receive Congressional documents. The act of February 26, 1840, also fixed the compensation for a superintending clerk (*a*) at \$1,500 per annum, a recording clerk at \$800 per annum, two assistant clerks at \$650 per annum each, and such other clerks as might be needed in examining and correcting the census returns, to be paid out of the appropriations for the sixth census; while under the provisions of the act of January 14, 1841, extra compensation was allowed to the superintending clerk for arranging and preparing the census of pensioners, and for the compiling and supervision of the printing of the statistical returns relating to the commerce and industries of the country.

The act of March 3, 1839, provided that the original returns of the enumeration, within thirty days after they had been laid before the grand juries, should be transmitted by the clerks of the district and superior courts to the Department of State, but by section 5 of the act of February 26, 1840, this provision of the census act was repealed, the same as in 1830.

The printed results of the sixth census are contained in three volumes, one relating to the enumeration of the inhabitants, one to the statistics of industry and commerce, and one to the census of pensioners; and, in addition, a "compendium of the enumeration of the inhabitants and statistics of the United States."

The results pertaining to population are presented in the northern States for cities, towns, and the other civil divisions, with a recapitulation by counties, and usually in the southern States for counties and a few civil divisions; and are followed in each case by an epitome of the population for the entire State or district. The presentation of the statistics of industry and commerce follows the plan of the report on population, so far as the nature of the returns will permit, showing

---

*a* William A. Weaver, of Virginia, who served as superintending clerk until March 18, 1842.

the results returned under the various heads prescribed by the schedule by towns, townships, etc., in the northern sections and mainly by counties in the southern sections, with recapitulations by counties, where necessary, and a summary by States and districts. The compendium is an exhibit of the population and industries of the country according to counties and principal towns, to which is appended an abstract of each preceding census, while the volume relating to pensioners gives the names, ages, and places of residence of pensioners for Revolutionary or military services, and the names of the heads of families with whom they resided June 1, 1840; but the number of such pensioners returned at the sixth census is given in the report of the census proper, in connection with the returns relating to the color, sex, and age of the population.

The total population of the United States in 1840 was 17,069,453, including 6,100 persons on public ships in the service of the United States, not credited to any State or Territory.

The total cost of the sixth census was \$833,370.95, subdivided as follows: For enumerating the inhabitants, \$586,628.74; for printing and binding, \$184,629.92; for postage, \$11,048.08; for temporary clerk hire, etc., at the Department of State, \$41,294.83; for incidental and contingent expenses, \$9,769.38. (*a*)

The census of 1840 may be said to mark the beginning of a concerted effort to make the decennial enumeration the instrument for ascertaining something beyond the mere number of persons of each sex and of various ages constituting each of the three great divisions of the population. Beyond these items, with one or two other minor particulars added from time to time, and two fruitless efforts to secure industrial statistics, nothing had been attempted thus far which, in any way, would show the growth and development of the country with respect to its industries and resources. Imbued with this feeling, however, President Van Buren, in his second annual message to Congress, (*b*) dated December 8, 1838, not only recommended the adoption of the necessary provisions for taking the sixth census, but also suggested "whether the scope of the measure might not be usefully extended by causing it to embrace authentic statistical returns of the great interests specially intrusted to or necessarily affected by the legislation of Congress." This suggestion found expression in the requirements of the census act, by which it was directed that the marshals and assistants should "collect and return in statistical tables \* \* \* all such information in relation to mines, agriculture, commerce, manufactures, and schools, as will exhibit a full view of the pursuits, industry, education, and resources of the country;" but these efforts to expand the scope of the census were not wholly suc-

---

*a* Report of Seventh Census, viii.

*b* Messages and Papers of the Presidents, Vol. 3, p. 49.

cessful. Complaint was made concerning the many errors to be found in the census, and memorials calling attention to them were presented to Congress. One of these memorials was that of the American Statistical Association, (*a*) made to Congress in 1843, in which it is set forth that various and gross errors have been discovered in the printed edition of the sixth census, but that the committee of the association appointed to investigate the matter and report thereon to Congress, not having reliable data with which to compare all the details of the census, have confined their investigations to the reports respecting education, nosology, and employments.

In connection with the statement of the errors in the returns for colleges and universities, the memorialists believe "there is good reason to suppose that the number of colleges given is almost twice as large as the true number, and that the number of students is exaggerated nearly as much," while as to common schools, the errors in regard to which "are the most striking," the memorialists speak at length, and show in a table for various cities, towns, and counties where the "number of scholars at public charge" exceeds, and sometimes very greatly, the whole number of scholars reported. The memorialists further find that, in returning the people according to their several employments, some of the marshals "seem to have included the whole population, men, women, and children, in these classes, arranging them, probably, according to the employment of the head of the family, and some seem to have noticed only the males over 21 years of age; others seem to have noticed all who were sufficiently able to perform any service; and, lastly, some seem to have entirely neglected this duty, and have recorded none in some of the employments; and in many counties none are reported to have any employment whatever." Some of these various classes of error and omission are cited in a table, and further comparison made of the number reported in mining and commerce with the returns made concerning these two classes on the schedule showing the capital invested, value of products, and persons employed in mining, agriculture, commerce, and manufactures. But, according to the memorialists, "the most glaring and remarkable errors are found in the statements respecting nosology, the prevalence of insanity, blindness, deafness, and dumbness, among the people of this nation." A comparison of these statements with other and more reliable data shows that they vary widely from the truth, and, further, that a comparison of the statements in one part of the census with those in another has shown the most extraordinary discrepancies. A comparison of the original manuscript copy of the returns for Massachusetts with the printed copies of the census shows a similar variance in the results, while a careful comparison of "the number of colored insane and idiots, and of the deaf and dumb and blind, with

---

*a* House Reports, Twenty-eighth Congress, first session, Vol. III, No. 580.

the whole number of the colored population, as stated in the printed edition of the census, in every city, town, and county in the United States" showed "extraordinary contradictions and improbabilities," the results of these comparisons being set forth in tabular form. The memorialists also found that "in many towns all the colored population are stated to be insane; in very many others, two-thirds, one-third, one-fourth, or one-tenth of this ill-starred race are reported to be thus afflicted," while a further statement is made that "the errors of the census are as certain, if not as manifest, in regard to insanity among the whites as among the colored population."

The memorialists conceive, in view of these facts, "that such documents ought not to have the sanction of Congress, nor ought they to be regarded as containing true statements relative to the condition of the people and the resources of the United States;" and that some action should be taken for their correction, or, if that is impossible, for the discarding and disowning of the same, "as the good of the country shall require and as justice and humanity shall demand."

These memorials were referred to the Committee on the Library in the Senate and to a select committee in the House, and in the reports of these committees the errors were admitted, although their source was not determined and no steps were taken toward their correction.

These errors were due, for the most part, to the ineffectiveness of the machinery by which the census was then taken, arising from the large increase in the number of inquiries, for which an inadequate compensation was provided, and from the lack of proper supervision of the work of the assistants by the marshals, who had other duties to perform; and it is not to be wondered at that, under these conditions, errors should have crept in and become painfully manifest in the printed reports. Indeed, the attempt to gather the industrial and commercial statistics was looked upon with very great disfavor in some sections of the country, and a leading journal of the South went so far as to inquire whether "this Federal prying into the domestic economy of the people" was not "a precursor to direct taxes," and whether it was "worthy of the dignity and high functions of the Federal Government to pursue such petty investigations."

The census of 1840 brought to a close, however, the first period of census taking in this country, the leading facts of which can be briefly summarized. The first six censuses were limited practically to population, so far as any real results were concerned, although at three of these censuses, those of 1810, 1820, and 1840, an effort was made to extend the scope of the census to include statistics of industry. These efforts were of little avail, however, and the results, although printed, have but little value. With respect to population, the inquiries had to do almost wholly with the color, sex, and age of the population, to which were added at some of the later periods two or three inquiries

concerning the number of persons engaged in a few of the great classes of occupations, the number of foreigners not naturalized, and the number of persons who were blind, deaf and dumb, or mentally defective. The distribution of the various elements of the population by age and sex was very limited at these earlier censuses, and it was not until the fifth and sixth censuses, those of 1830 and 1840, that the age distribution of the free white population was made to comprehend quinquennial and decennial periods, while the distribution of the free colored and slave elements was much more limited and covered a different classification of age than that applied to the free whites. These items of inquiry were gathered in connection with the name of the head of the family only, and showed simply the number of persons in each family, according to the various specifications of age, sex, and color prescribed by the several census acts. The enumeration, although taken as of a specified day, extended over a very long period of time, varying from nine months in 1790 to twice that period in 1840, before the field work was finally completed.

As a matter of course, from the nature of the inquiries, which were fixed and determined by the schedules prescribed, there was no tabulation required beyond the simple addition of the various entries concerning each family enumerated to determine the totals for each county, city, town, or other civil division comprehended in the several judicial districts and territories. These returns were made, more or less incomplete as to civil divisions, to the Secretary of State, with the exception of the first enumeration, when they were sent direct to the President, and were published in practically the shape in which they were received, without any attempt to present the details uniformly by cities and towns or to summarize the results for each State by counties, unless they happened to be so returned originally. A summary of the results by States and Territories was added in the office of the Secretary of State, in order to show the aggregate results for the entire country, and this represented the only work done at the central office, in the way of compilation of results, aside from the revision of the returns made in 1830 and 1840, to note the clerical errors, as directed by Congress. The methods in vogue at the first six censuses, therefore, were somewhat crude and essentially primitive, and the results presented covered but comparatively few details.

#### **THE SEVENTH CENSUS: 1850.**

As a result of the discussion which had arisen concerning the inaccuracies in the Report of the Sixth Census, it was realized that more adequate provision should be made for the seventh census, to be taken in 1850. This idea was recognized by the select committee of the House charged with the consideration of the errors reported in the sixth census, and in their report the statement is made that the defects

of this census form a strong argument for the establishment of a bureau of statistics, while in the report of the Senate Committee on the Library, concerning the same subject, offered by Senator Choate, it is stated that "in view of the manifest and palpable, not to say gross, errors of the late census, the committee feel bound to suggest to the Senate the necessity of some legislation with a view to prevent similar errors and inaccuracies in the census to be taken in 1850;" and, further, that they would "express with emphasis their opinion that, in the law providing for the taking of the next census, care should be taken to insert provisions which will insure fidelity on the part of those whose duty it will be to take the census, and accuracy on the part of those on whom it may devolve to prepare the results for publication." It was not until very near the close of the decade, however, that active steps were taken to modernize the work of the seventh census, and to improve the machinery by which it was prosecuted.

The first action toward making provision for the seventh census was taken at the session of Congress which convened in 1848, when it was proposed to use the schedules of 1840 again, but to eliminate therefrom what were termed the objectionable inquiries. This proposition met with a firm protest both in and out of Congress, and Mr. Capen, of Massachusetts, suggested that commissioners be appointed to take the census, and in a letter to a Senator from the same State recommended that a board of inquiry be appointed to examine and report upon the features which should properly be embraced in the census. By an act approved March 3, 1849, a census board was established, to be composed of the Secretary of State, the Attorney-General, and the Postmaster-General, and this board was required by said act "to prepare and cause to be printed such forms and schedules as may be necessary for the full enumeration of the inhabitants of the United States; and also proper forms and schedules for collecting in statistical tables, under proper heads, such information as to mines, agriculture, commerce, manufactures, education, and other topics as will exhibit a full view of the pursuits, industry, education, and resources of the country; it being provided that the number of said inquiries, exclusive of the enumeration, shall not exceed one hundred, and that the expense in preparing and printing said forms and schedules shall not exceed \$10,000." Section 2 of the act also provided for the appointment by the board of a secretary, whose compensation was to be determined by Congress, and which was subsequently fixed at \$3,000 per annum.

By another act of the same date the Department of the Interior was established, and in section 7 of said act it was provided that the Secretary of the Interior should "exercise all the supervisory and appellate powers now exercised by the Secretary of State in relation to all acts of marshals and others in taking and returning the census of the United States."

• Subsequent to the formation of the census board, Mr. Shattuck, of Boston, also recommended that a central board of three persons, as commissioners, should be organized at Washington, to be selected “not for their political opinions, but for their scientific attainments and knowledge of the matters they are to investigate,” and to have the whole management of planning and carrying into execution all matters relating to the census. It was also a part of his plan that similar commissions of three competent persons should be appointed by this central board in each State, with the consent of the governor thereof, and that each State commission should appoint district commissions, believing that by “this machinery a more perfect collection of facts could be obtained than in any other way.”

• The Senate at its next session also appointed a special committee to make provision for the census, and this committee began its work without much reference to the plans of the census board already created. This board, however, in the course of its work, called into consultation many eminent statisticians, including, among others, Mr. Shattuck, Mr. Capen, Dr. Chickering, and Dr. Jarvis, and its plan was afterwards submitted to the Senate committee, by whom its principal features were adopted. (*a*)

• Provision was made for taking the seventh census, therefore, by act of May 23, 1850, in which six schedules or tables were prescribed and made a part of the act, and by which the information called for by Congress was defined. This census was taken, as heretofore, by the marshals and their assistants, and the enumeration, which was made as of June 1, 1850, was to close and the results thereof be returned to the Secretary of the Interior on or before the 1st day of the following November. Indians not taxed were omitted from the enumeration of the inhabitants, and in the Territories any part or all the statistics except those of population could be omitted, at the discretion of the Secretary of the Interior. He was also authorized to extend the time for making the returns in the Territories, if necessary, and if in any district or Territory there should be no marshal, the President was directed to appoint some suitable person to take the census.

• Each marshal, before entering upon his duties, was required to take an oath or affirmation, according to the form prescribed by the act, and, when duly authenticated, to be deposited with the Secretary of the Interior; and until these provisions had been complied with, no marshal should perform any of the duties required of him.

The various subdivisions into which each marshal's district was separated were not to contain, so far as practicable, more than 20,000 inhabitants, and were to be bounded by known civil divisions, highways, or natural boundaries, such as rivers, lakes, etc. For each of these subdivisions an assistant was to be appointed, who should be a

---

*a* Compendium of the Seventh Census, pp. 12, 13.

resident therein, and to whom the marshal was required to give a commission under his hand, authorizing him to perform the duties of an assistant, and setting forth the boundaries of his subdivision.

Each marshal was further required to "supply each assistant with the instructions issued by the Department of the Interior, the blanks provided for the enumeration of the population, and the collection of other statistics, and give to him, from time to time, all such information and directions as may be necessary to enable him to discharge his duty." He was also directed to carefully examine the returns of each of his assistants, and if not properly made, to require them to be corrected; to determine the rate of compensation to be paid to each assistant, subject to the final approval of the Secretary of the Interior; to keep himself posted as to the progress made by each assistant in his work, and in case of inability or neglect, arising from sickness or other cause, to appoint a substitute.

Any marshal could appoint a deputy or deputies to act in his behalf, if not inconsistent with the duties of his assistants, and such deputies could collect the social statistics, if so desired; but the marshal was made responsible for their acts in all cases. Furthermore, in the Territories or sparsely settled districts, the Secretary of War was directed to allow the services of the officers and other persons belonging to the Army to be utilized in the taking of the census, where needed, if it could be done without prejudice to the public service.

Each assistant, having received his commission and taken the oath or affirmation prescribed by the act and forwarded a copy thereof, duly authenticated, to the marshal of his district, was required to "perform the service required of him by a personal visit to each dwelling house, and to each family in the subdivision assigned to him," and to ascertain, by inquiries made of some member of each family, if anyone can be found capable of giving the information, but if not, then of the agent of such family, the name, age, place of birth, and all the other particulars required concerning each member thereof; he was also required to visit personally the farms, mills, shops, mines, and other places respecting which information is required in his district, and to obtain all such information from the best and most reliable sources; and when, in either case, said information had been obtained and entered on the schedules, it was to be immediately read to the person or persons furnishing the facts, to correct errors, and supply omissions, wherever necessary.

The assistants were required by their instructions to furnish, prior to October 1, 1850, the original census returns to the clerks of their respective county courts, and to forward two copies, duly compared and corrected, to the marshals; but by act of August 30, 1850, the Secretary of the Interior was authorized to extend the time in delayed districts to any day not later than January 1, 1851, and in California, Oregon, Utah, and New Mexico to such time as in his discretion may

be deemed advisable. Each assistant was also required to sign each page of the schedules before being sent to the marshals, and to state on the last page the whole number of pages in each return and to certify that "they were well and truly made according to the tenor of his oath of office."

The act provided for the transmission through the mails, free of postage, of all documents and papers relating to the census, and, for the purpose of covering the expense of transmitting the blanks and other matter through the mail, appropriated \$12,000, to be paid to the Post-Office Department.

The marshals were not allowed a fixed sum for their services, as in preceding censuses, but were compensated at the rate of \$1 for each 1,000 persons in each district containing more than 1,000,000 inhabitants, and at the rate of \$1.25 for each 1,000 persons in each district containing less than 1,000,000 inhabitants; but no marshal was to receive less than \$250, and where the compensation did not exceed \$500 a reasonable allowance for clerk hire was to be made, the amount to be determined by the Secretary of the Interior.

The assistants, instead of being allowed, as heretofore, a certain rate for a specified number of persons returned, were paid for each person and each farm and establishment, as follows:

Two cents for each person enumerated, and 10 cents per mile for necessary travel, "to be ascertained by multiplying the square root of the number of dwelling houses in the division by the square root of the number of square miles in each division, and the product shall be taken as the number of miles traveled for all purposes in taking this census;" 10 cents for each farm; 15 cents for each establishment of productive industry; 2 cents for each death, and for the social statistics 2 per cent upon the amount allowed for the enumeration of population. By act of August 30, 1850, assistant marshals and agents were allowed 8 cents for each page of the two copies of the original census returns required by section 11 of the census act, and extra compensation was allowed to marshals or agents and their assistants in California, Oregon, Utah, and New Mexico. One-half of the compensation of an assistant was to be paid upon the certificate of the marshal that the work had been completed to his satisfaction and a return had been made of the subdivision confided to him, and one-half after the returns had been examined at the Department of the Interior and found to be satisfactory. Payments were to be made in the same manner to the several marshals, and it was also provided by the act that a marshal, at his discretion, could perform the duties of an assistant in any subdivision in which he may reside, and receive the compensation allowed to an assistant for like services.

In case a marshal should knowingly neglect or refuse to perform the duties assigned him, or should in any way secure any fee, reward, or compensation for the appointment of an assistant, or any t of

the compensation allowed him, he was subject to a penalty of not less than \$1,000, while an assistant was liable to a forfeiture of \$500, if having accepted an appointment he should, without justifiable cause, neglect or refuse to perform his duties; and in case either a marshal or an assistant should willfully make a false oath or a false certificate, he was liable to forfeit and pay not exceeding \$5,000 and be imprisoned not less than two years.

If any free person over 20 years of age belonging to a family, or if the agent of a family, in the absence of the head and other members, should refuse, upon the request of a marshal or assistant, to furnish the information required, to the best of his knowledge, he was subject to a fine of \$30.

The Secretary of the Interior was charged with the duty of carrying out the provisions of the act of May 23, 1850, and was required to provide necessary blanks and proper instructions, and to distribute them among the marshals; to see that there is due diligence on the part of the marshals and assistants, so that their returns may be completed within the time prescribed, and when the returns are so made, "to cause the same to be classified and arranged in the best and most convenient manner for use, and lay the same before Congress at the next session thereof." And for these purposes he was authorized and required to appoint a suitable and competent person as superintending clerk, at an annual salary of \$2,500, and such clerks and other officers as might be needed from time to time, at salaries not to exceed \$1,000 per annum. The salary of the superintending clerk, or Superintendent of the Census, was increased by act of April 22, 1854, to equal that of the Assistant Secretary of the Treasury (\$3,000).

If no provision was made for the eighth or any subsequent census on or before January 1, of the year in which the census was required to be taken, under the Constitution, it was provided that it should be taken and completed according to the provisions of the act of May 23, 1850; and by a later act, that of July 30, 1852, the Secretary of the Interior was authorized, at any future decennial enumeration of inhabitants, to order a new enumeration of any district or subdivision in case of an improper enumeration or the accidental loss or destruction of returns.

The act of May 23, 1850, also fixed the membership of the House of Representatives from and after March 3, 1853, and directed that the apportionment of representatives under the next or any subsequent enumeration should be made by the Secretary of the Interior, in the manner as provided by the act.

Six schedules were prepared and printed by the census board, as required by the act creating said board, and these schedules were made a part of the act of May 23, 1850, under the provisions of which the seventh census was taken. These schedules were of uniform size (13 by 17½ inches), being much smaller than those in use at the censuses of

1830 and 1840, and related, respectively, to (1) free inhabitants, (2) slave inhabitants, (3) mortality, (4) productions of agriculture, (5) products of industry, and (6) social statistics.

Schedule No. 1, relating to free inhabitants, called for a record of the dwelling houses and families visited, and for every person who resided on the 1st day of June, 1850, in any family a detailed statement was required of the name, age, sex, color (white, black, or mulatto), value of real estate owned, place of birth (State, Territory, or country), whether married within the year; whether deaf and dumb, blind, insane, or idiotic, or a pauper or convict; whether attended school within the year, if applicable; whether unable to read and write, for persons over 20 years of age, and the profession, occupation, or trade ordinarily followed, for male persons over 15 years of age.

Schedule No. 2, relating to slave inhabitants, called for the names of slave owners, the number of slaves, a detailed statement for each slave as to color, sex, age, and whether deaf and dumb, blind, insane, or idiotic; the number of fugitives from the State, and the number manumitted.

Schedule No. 3, relating to mortality, called for a return concerning every person who died during the year ending June 1, 1850, of the name, age, sex, color, and place of birth; the same as for the living population; and, in addition, whether free or slave; whether married or widowed; profession, occupation, or trade; month of death; disease or cause of death; number of days ill, and remarks.

Schedule No. 4, relating to the productions of agriculture during the year ending June 1, 1850, called for a return for each farm of the name of the owner, agent, or manager; the number of acres of improved and of unimproved land; cash value of farm; value of farming implements and machinery; number of live stock on hand June 1, 1850, under seven specifications, namely, horses, asses, and mules, milch cows, working oxen, other cattle, sheep, and swine; value of live stock; quantity produced during the year of each of 29 crops or farm products, namely, wheat, rye, Indian corn, oats, barley, buckwheat, rice, tobacco, ginned cotton, wool, pease and beans, Irish potatoes, sweet potatoes, wine, butter, cheese, hay, clover seed, other grass seeds, hops, dew-rotted hemp, water-rotted hemp, flax, flaxseed, silk cocoons, maple sugar, cane sugar, molasses, and beeswax and honey; value of orchard products; value of the produce of market gardens; value of homemade manufactures, and value of animals slaughtered; or, in all, 46 items. The twenty-seventh section of the act of May 23, 1850, also provided that for all other descriptions of hemp not embraced in the denominations of dew and water rotted an estimate should be included in the returns.

Schedule No. 5, relating to the products of industry during the year ending June 1, 1850, called for a return of the name of each corporation, company, or individual producing articles to the annual

value of \$500; name of business, manufacture, or product; amount of capital invested in real and personal estate in the business; quantities, kinds, and values of raw materials used, including fuel; kind of motive power, machinery, structure, or resource; average number of male and of female hands employed; average monthly cost of male and of female labor; and quantities, kinds, and values of annual product; or, in all, 14 inquiries. This schedule was intended to apply to all forms of productive industry, including manufactures (except household manufactures), mining, and the fisheries, and all kinds of mercantile, commercial, or trading business.

Schedule No. 6, relating to social statistics, called for an aggregate return for each subdivision enumerated of information concerning the following subjects: Valuation of estate; annual taxes; colleges, academies, and schools; seasons and crops; libraries; newspapers and periodicals; religion; pauperism; crime; and wages. The detailed inquiries called for, under valuation, the value of real, personal, and total estate, how valued, and true valuation of total estate; under annual taxes, the kind and amount of each and how paid; under colleges, academies, and schools, the number and kind of each, the number of teachers and pupils in each, and the annual amount in each case either realized from endowment, raised by taxation, received from public funds, or received from other sources; under seasons and crops, the kinds of crops short, to what extent, and the usual average crop; under libraries, the number and kind, and the number of volumes in each; under newspapers and periodicals, the name, character, how often published, and circulation; under religion, the number and denomination of churches, number each will accommodate, and value of church property; under pauperism, the whole number of paupers supported within the year and the number on June 1, 1850, subdivided, in each case, as native and foreign, and the cost of support for the year; under crime, the whole number of criminals convicted within the year and the number in prison June 1, 1850, subdivided, in each case, as native and foreign; and under wages, average monthly wages paid to a farm hand with board, average wages to a day laborer with and without board, average day wages to a carpenter without board, weekly wages to a female domestic with board, and the price of board to laboring men per week.

These schedules were supplemented by printed instructions, (a) in which the intent of each inquiry was explained in detail, and, as a further guide, each assistant was supplied with a set of schedules filled up in the manner contemplated by the census act and the printed instructions. Spaces were provided at the head of each schedule for the entry of the name of the civil division for which the enumeration was made

and the day of the month when made, and the assistants were required by the instructions to sign each page of each schedule filled by them.

The scope of the census was thus extended materially, and, so far as the return of population was concerned, the method of enumeration underwent an important change. At the seventh census, the several inquiries with respect to the free population were made concerning each person enumerated, while for the slave population a detailed statement of the color, sex, and age of each slave enumerated, in connection with other numerical data, was obtained for the first time, instead of, as in the preceding censuses, a return being made of the number of each of the various classes of persons in each family, in connection with the name of the head of the family only. The schedules relating to these two classes of the population contained forty-two lines to each page, and one family of free persons or body of slaves followed another in the order of their enumeration, the inquiries being printed at the head of the columns and the entries being made on separate lines for each free person or slave enumerated. The returns related to the individual, therefore, and were, for the first time in the census, susceptible of detailed treatment and classification. The preparation of the returns for publication was no longer made a part of the duties of the marshals, and this provision applied equally to the inquiries made, for the first time, concerning persons who had died during the year and with respect, also, to the products of agriculture and industry. All the returns relating to the various subjects investigated were made by the marshals in the form as enumerated by the assistant marshals, and the classification and compilation of the results preparatory to their publication was made in the central office at Washington. These radical changes in the method and scope of the census, therefore, constituted an epoch in the history of census taking in this country, and mark the real beginning of the conduct of the census work in accordance with plans requiring the individual enumeration of persons and establishments, and conforming, in these respects, more nearly to the requirements of the present day.

- 4 In the work of enumeration 45 marshals and 3,231 assistant marshals were employed, and the first returns were received at the census office in Washington August 29, 1850. The last returns, those of California, were not received, however, until February 17, 1852, but this was due to the fact that a portion of the California returns was destroyed by fire, and new copies from the originals had to be prepared. The marshals and assistants, with few exceptions, discharged their duties in a prompt and efficient manner, and, as stated in the report of the Superintendent of the Census, December 1, 1851, (*a*) to them is due the credit of the returns being made "in time to admit of placing the aggregate

---

*a* Abstract of Seventh Census, p. 126.

enumeration of population before the Congress succeeding that which enacted the law, and on the first day of the session." The report further states (*a*) that the utmost care was exercised to insure correct returns, and in all cases where error or inconsistency could be detected, real or imaginary, effort was made by correspondence to have the discrepancy corrected, and, furthermore, that it had been necessary, "in only three cases, to call the attention of a United States district attorney to require enforcement of the act of Congress for refusal to reply to interrogations of the assistants;" in two of these cases returns were eventually made without the necessity of making costs to the parties, and in the other case costs were paid before appearance and a satisfactory return made to the office.

The schedules of the census of 1850, originals and copies, weighed over 100 tons, and required 3,000 reams of medium-size paper to print them. They were sent by express to the marshals, and were returned, when completed, to the census office by mail. The data contained on the schedules were then taken off upon blank forms (*b*) prepared for the purpose of condensing the information, so as to secure the results for the various civil divisions, for each of the States, and for the United States as a whole. The average number of persons employed in the census office during the last months of 1850 was 23; during the years 1852 and 1853, 128; first three months of 1853, 160, and from March 20 to November 15, 1853, 35.

The first results of the census in printed form were given in an abstract report to Congress December 1, 1851, containing a statement of the population of the States, except California, with other information, and this was followed by a second abstract report to Congress, a year later, containing much more detailed information derived from the census returns. These reports were published together in a small volume of 160 pages, known as the "Abstract of the Seventh Census," and of which an edition of 100,000 copies was printed by order of the House of Representatives.

The printing of the large quarto volume containing the general results of the census was begun about the middle of June, 1853, and was completed and published during the latter part of the same year. This volume is made up of 1,022 quarto pages of tabular matter, covering the various statistics presented in a series of fourteen tables, with explanatory notes, for each State and Territory, arranged in their geographical order, and 136 pages of analytical and introductory matter, or 1,158 pages in all. This preliminary text, which appears for the first time in the reports of the census, contains summaries, by States and Territories, for each of the subjects considered and com-

---

*a* Abstract of Seventh Census, p. 128.

*b* Seventh Census of the United States, p. xiii.

parisons of the results of the seventh census with those of preceding censuses and with data derived from European sources; and, in addition, much valuable information as to the cost of the first seven censuses; the administrative features of the census of 1850; an abstract of the census legislation from 1790 to 1850, inclusive; copies of the schedules adopted at each census to 1850; copies of the instructions to marshals and assistants at the censuses of 1840 and 1850, including a detailed explanation of the schedule inquiries at the latter census; remarks upon the schedules of 1850, etc.; copies of the blank forms used in the census office for condensing information in 1850, and a brief synopsis of the European census systems. By direction of Congress, the returns of the population and industry of California, as shown by the State census of 1852, are appended to the census tables of 1850 for that State.

The statistics contained in this quarto report related to population, agriculture, illiteracy, school attendance, schools, libraries, churches, and newspapers and periodicals, but did not comprehend the statistics of mortality or manufactures. The report (*a*) on mortality was published late in 1855, in accordance with a resolution of the House of Representatives passed December 13, 1854. The report on manufactures was published in March, 1859, as a Senate document, (*b*) being condensed from the digest prepared under the direction of the Secretary of the Interior, in conformity with the first section of the act of June 12, 1858, by which the sum of \$3,500 was appropriated for the purpose. A compendium of the seventh census was also published late in 1854, having been ordered by a resolution of the House of Representatives passed January 12, 1854, and this publication was in the main a condensation of the large quarto report published in 1853, with the addition of partial data relating to mortality and manufactures.

For the supervision of the work of enumeration and the compilation of the results, Mr. Joseph C. G. Kennedy, of Pennsylvania, who had served as secretary of the Census Board from May 1, 1849, to May 31, 1850, was appointed by the Secretary of the Interior, in accordance with the provisions of the census act, as superintending clerk, or, as more commonly known, Superintendent of the Census. Mr. Kennedy was succeeded by Mr. James D. B. De Bow, of Louisiana, who was appointed superintending clerk March 18, 1853, and under whose direction the compilation of the census returns was completed. When the work of compiling the compendium was brought to a close, late in 1854, Mr. De Bow resigned his office as Superintendent of the Census, to take effect December 31, 1854, and the census office was disbanded. It was revived early in 1855 in order to prepare the report

---

*a* House Ex. Doc., Thirty-third Congress, second session, No. 98.

*b* Senate Ex. Doc., Thirty-fifth Congress, second session, No. 39.

on mortality, for which purpose Mr. De Bow was reappointed, and upon the completion of this work, in November, 1855, the office was again disbanded. In the preparation of the digest of the statistics of manufactures, ordered by the act of June 12, 1858, the services of Mr. Joseph C. G. Kennedy were utilized, and upon its completion, in December, 1859, he remained as superintending clerk from January 1 to May 31, 1860, when he was appointed Superintendent of the Eighth Census.

The total population returned at the census of 1850 was 23,191,876.

The total cost of the seventh census was \$1,423,350.75, distributed as follows: For preparing forms and schedules (by census board), \$9,496.52; for transmitting papers relating to census through the post-office, \$12,000; for payment to marshals and assistants for enumerating inhabitants, etc., \$952,401.18; for paper and printing of returns, \$43,016.61; for binding schedules of seventh and preceding censuses, \$2,328.87; for all other expenses, including clerk hire, etc., for compilation of census returns, \$404,107.57.

#### CENSUS OF MINNESOTA: 1857.

A census or enumeration of the inhabitants of the Territory of Minnesota was taken by the marshal thereof, prior to its admission as a State, in accordance with the provisions of section 4 of the act of February 26, 1857, in order to determine the number of representatives in Congress to which it would be entitled, and an appropriation of \$20,000 was made for the purpose. This census was taken by direction of Congress, under the supervision of the Department of the Interior, but the results were not finally reported until July 23, 1858.

#### THE EIGHTH CENSUS: 1860.

The census of 1860 was taken under the act of May 23, 1850, upon the recommendation of the Secretary of the Interior that the provisions of that act should be adhered to, following the requirement for the taking of the eighth or any subsequent census under its provisions, if no law therefor was passed before January 1 of the year in which the census was required to be taken, under the Constitution. By act of May 5, 1860, a classified clerical force was provided for the census office, consisting of a chief clerk, six clerks of class 4, nine clerks of class 3, ten clerks of class 2, and such number of clerks of class 1 as might be necessary, and the Secretary of the Interior on June 1, 1860, appointed Mr. Joseph C. G. Kennedy as Superintendent of the Eighth Census.

The same schedules of inquiry were used as in 1850, with a few additions and extensions, the most important being those on the schedule for free inhabitants, which required that the "profession, occupation,

or trade of each person, male and female, over 15 years of age" should be returned, instead of only that of males over 15 years of age, and that under the value of estate owned a separate return was made of the value of real estate and of personal estate, instead of the value of real estate only. An inquiry was also added on the schedule for slave inhabitants, calling for the number of slave houses, while on the schedule relating to the productions of agriculture a return was required as to the quantity of beeswax and honey separately, instead of combined, as in 1850. The detailed instructions were also modified, to overcome the difficulties which arose in the course of the enumeration in 1850 and to avoid all misapprehension as to the intent of the inquiries. With the exception of these slight changes, however, the eighth census was carried on under the same plans and in accordance with the same methods which governed the seventh census; nor did the census of 1860 suffer particularly from the effects of the civil war, which developed soon after the completion of the enumeration, in the way of a detention or loss of any of the returns, and the only delay arising therefrom came from the interruption of communication with many of the marshals, necessary to insure, through correspondence, completeness in the arrangement of some of the minor details. (*a*)

There were employed in the fieldwork the 64 marshals of the judicial districts of the country, a few special agents in the unorganized territory, and 4,417 assistants. In November, 1860, there were 127 clerks employed in the census office, 168 clerks and 16 messengers, laborers, and watchmen in May, 1862, and a total of 110 persons, including clerks, laborers, messengers, and watchmen, in November, 1862. The census office was practically abolished May 31, 1865, the services of the superintending clerk being dispensed with on that date, and a portion of the clerks engaged on the census work were transferred to the General Land Office, where the work was completed, including the publication of two volumes of the census report, under the direction of the Commissioner of the General Land Office.

The first published results of the eighth census were contained in a preliminary Report of the Eighth Census, consisting of 310 octavo pages, which was transmitted to Congress early in May, 1862, and of which 105,000 copies were ordered printed by a resolution of the House of Representatives passed May 21, 1862.

The final Report of the Eighth Census was contained in four quarto volumes, one relating to population, one to agriculture, one to manufactures, and one to mortality and miscellaneous statistics. These volumes contain in each case many pages devoted to a careful analysis of the statistics contained therein, besides much descriptive and historical data concerning the several classes and industrial interests considered.

---

*a* Population of the United States in 1860, pp. iii, iv.

The volume on agriculture contains a table, omitted from the volume on population, giving the number of slaveholders and slaves in 1860 by counties and a recapitulation by States and Territories, with a similar recapitulation by States and Territories for 1850. The final volume of this report, which is devoted to mortality and miscellaneous statistics, contains, in addition to mortality statistics, those relating to religion, education, libraries, schools, colleges, etc., real and personal estate, the public press, pauperism, crime, wages, families and free population, banks and insurance, railroads, canal and river improvements, and the fisheries, and a preliminary chapter of "observations on the census" in the United States and foreign countries.

The total population of the United States at the census of 1860 was 31,443,321.

The total amount appropriated and expended for the eighth census was \$1,969,376.99, of which, approximately, \$1,329,749.07 was paid to marshals and assistants, and to special agents in Territories for enumerating the inhabitants, etc.; but some of the claims of marshals and assistants in the South were not finally adjusted, on account of conditions arising from the civil war, until several years after the service was rendered.

#### THE NINTH CENSUS: 1870.

The ninth census was taken in accordance with the terms of the act of May 23, 1850, although an effort was made to have new legislation effected for the government of its operations. While the census of 1850 was a decided improvement over its predecessors, and the census of 1860 was, as stated by a Congressional committee, "the most complete census that any nation has ever had," it was recognized that the law of 1850 was entirely inadequate to meet the changed conditions under which the census of 1870 would have to be taken. A special committee of the House of Representatives, in the second session of the Forty-first Congress, was, therefore, charged with the duty of considering the census needs, and required to report as to what legislation, if any, was essential to the proper taking of the ninth census. This special committee, under the able leadership of General Garfield, made a careful study of census methods, calling to their counsels many experts, including Gen. Francis A. Walker and Dr. Edward Jarvis, and the results of their deliberations were presented in an extended report, in which a comprehensive plan for taking the ninth census was submitted in the form of a bill, accompanied by an exhaustive exposition of the entire subject of the census here and abroad. This report (*a*) was made January 18, 1870, and the bill was passed by the House of Representatives, but was defeated in the Senate, thereby compelling the census of 1870 to be taken under the antiquated law of

---

*a* House Reports, Forty-first Congress, second session, Vol. I, No. 3.

1850, which by its own provisions was made applicable thereto after January 1, 1870, but the operation of which, by the resolution of December 22, 1869, had been suspended and postponed until February 1, 1870, pending action by Congress. Although the painstaking work of this committee came to naught, so far as the ninth census was concerned, it was not wholly lost, but formed the ground work of the plan which was embodied in the law governing the work of the tenth census.

The census of 1870, therefore, was carried on under the law of 1850, but several additions and alterations were made in the schedules of inquiry. Gen. Francis A. Walker, at that time the chief of the bureau of statistics in the Treasury Department, was appointed February 7, 1870, by the Secretary of the Interior, as Superintendent of the Ninth Census, and under his skillful guidance and direction the best census that it was possible to take under the provisions of the existing census law was brought to its completion early in 1873, and the printed results given to the public at an earlier date than ever before. The only legislation that was had in 1870-71 which affected the conduct of the census work was that of the act of May 6, 1870, the resolution of June 9, 1870, and section 8 of the act of March 3, 1871. The act of May 6, 1870, is as follows:

That the time allowed for transmitting the said copy of the returns of the assistant marshals to the census office is hereby further limited so that the returns of population upon schedule numbered one in the act of May twenty-third, eighteen hundred and fifty, shall be sent to that office on or before the tenth day of September next, and complete returns upon all the schedules annexed to and made a part of that act, excepting upon the schedule therein designated as number two, which schedule is hereby revoked, canceled, and declared to be no longer a part of said act, shall be forwarded to the census office before the first day of October following: *Provided*, That the Secretary of the Interior shall be authorized to extend the time allowed for returns on the schedules other than those of population in any case where it shall appear to him to be necessary: *Provided further*, That whenever, from the loss or destruction of returns, or from causes beyond the control of the officers charged with the enumeration, it shall be shown to be impracticable to comply with the requirements of this section, the Secretary of the Interior is authorized to extend the time allowed for rendering returns of population, not beyond the first day of October next.

SEC. 2. That the penalty provided in the fifteenth section of said act of May twenty-third, eighteen hundred and fifty, shall apply to any refusal whatever to answer either of the inquiries authorized by said act.

SEC. 3. That each assistant marshal or agent shall be paid for making out and returning complete copies of the original census returns, as required in the eleventh section of the act, to which this is a supplement, eight cents for each page of the two copies of the original census returns required by the said eleventh section.

SEC. 4. That the oath to be taken by assistant marshals employed to take the census shall be the oath required by the act of eighteen hundred and fifty, of which this is an amendment.

By the resolution of June 9, 1870, the Secretary of the Interior was authorized to increase the compensation of assistant marshals whenever, in his judgment, such increase should be necessary, but in no case to exceed 50 per cent of the amount now allowed by law, and to be made only "when by reason of the sparseness of the population the compensation heretofore allowed by law is not sufficient," and it was further stipulated that the entire compensation should not be more than \$8 per day, exclusive of mileage, for the time actually employed. This increased compensation was only applicable to sparsely settled districts, however, but by section 8 of the act of March 3, 1871 (as modified by section 8 of the act of April 20, 1871), this limitation was removed, and the Secretary of the Interior given authority to allow such increased compensation, without regard to the density of population, whenever such increase was deemed by him to be necessary.

The schedules of inquiry were remodeled at this census, in the sense that the inquiries were made more explicit in many cases, and by the omission of the former slave schedule several additional inquiries were made possible. These changes and additions may be briefly summarized.

Schedule No. 1, for the enumeration of population, contained five additional inquiries, two relating to parentage, that is, of persons having either a father or mother of foreign birth; two inquiries, under the requirements of the fourteenth amendment, to determine the number of male citizens of the United States of 21 years of age and upward, and the number of such citizens whose right to vote is denied or abridged on other grounds than rebellion or other crime; and an inquiry as to the month of birth, for each person born within the year. The month was also called for in the inquiry relating to persons married within the year, and an extension was made in the inquiry respecting "color" so as to distinguish the Chinese and Indians among the general population. The age limitation of 15 years was also removed from the inquiry concerning the profession, occupation, or trade, while the inquiry relating to illiterate persons was divided to show the number unable to read and the number unable to write; and by the instructions to assistant marshals these two inquiries were made to apply to all persons 10 years of age and over. The inquiry on the population schedule as to whether a "pauper" or "convict" was also omitted as being offensive and superfluous, and the return for these two classes confined to the schedule calling for social statistics.

Schedule No. 2, relating to persons who died during the year, was modified by the addition of the inquiry as to parentage and the extension of the inquiry respecting color to include Chinese and Indians, as in the population schedule, and by the omission of the inquiry as to whether "free or slave," which was no longer necessary, and the inquiry as to "number of days ill," which was deemed of no importance.

Schedule No. 3, relating to agriculture, contained a division of the inquiry concerning unimproved land so as to show the "acres of woodland" and "acres of unimproved land" separately; a subdivision of the inquiry concerning the quantity of wheat produced into "bushels of spring wheat" and "bushels of winter wheat;" an extension of the inquiry concerning the value of animals slaughtered to include, in addition, those sold for slaughter; the substitution of a single inquiry as to "tons of hemp," instead of a separate return for dew-rotted, water-rotted, and other prepared hemp, as in 1860; and the addition of inquiries as to the total amount of wages paid during the year (including the value of board), number of gallons of milk sold, value of forest products, and estimated value of all farm productions, including betterments and additions to stock.

Schedule No. 4, relating to products of industry, subdivided the inquiry concerning motive power and machinery so as to show specifically the kind of motive power, number of horsepower (if steam or water), and the number and kind of machines used; while the inquiry concerning the average number of hands employed was also made to cover males above 16 years, females above 15 years, and children and youth, instead of the number of males and of females, as formerly. The inquiries as to the average monthly cost of male and of female labor were abandoned and an inquiry substituted as to the total amount paid in wages during the year, and a new inquiry added to show the number of months in active operation, reducing part time to full time.

Schedule No. 5, relating to social statistics, omitted the inquiries as to "seasons and crops" and substituted therefor an inquiry concerning the bonded and other debt of counties and of cities, towns, townships, parishes, and boroughs. The inquiries under "pauperism and crime" as to the number of native paupers and criminals on June 1, respectively, were extended to distinguish native whites and native blacks; under "religion," the ambiguous term of "number of churches" was expanded to two inquiries, number of church organizations and number of church edifices; under "education," inquiries as to the number of teachers and of pupils were subdivided to show, in each case, the number of males and of females, while under the three heads of "schools," "libraries," and "taxation," the kinds of schools, libraries, and taxes were classified on the schedules, to avoid confusion and error in the returns.

The enumeration of inhabitants at this census, which by law was commenced June 1, 1870, was substantially completed by the 9th of January, 1871, at which date returns for all but about 225,000 persons, out of a total of 38,500,000 people, had been received; but the entire work of enumeration was not completed until August 23, 1871, seven and a half months later, when the last return representing 304 persons was received. The period contemplated by the act of May 6, 1870, for

the completion of the census was, in round numbers, one hundred days, but the delays beyond that limit were unavoidable, under the existing census machinery, arising from the ineradicable defects of the act of 1850, under which, with slight modifications, the census was taken.

In the compilation of the results of this census, as stated by Superintendent Walker, every effort was made to adhere to the forms used in preceding census publications, so far as possible, in order to make comparison practicable, rejecting those classifications only which were thought to be essentially vicious and introducing new divisions or new groupings to overcome the inadequacies of former presentations, but retaining the old so far as to admit of comparisons. The scope of the report was further enlarged, for the purpose of more completely presenting the information obtained in the enumeration, and, in addition, the results of the preceding censuses with respect to the subdivision of the population according to color were republished, after careful revision, by States and counties, in tables 1 and 2 of the volume relating to population—a necessity due not only to the scarcity of the published volumes of the earlier censuses but also on account of the inaccuracies which existed in these official publications. In the comparative tables of population from 1790 to 1870, given in the Report of the Ninth Census, all the variations from former official totals are set forth in detail and fully explained.

The census office was organized on the 7th of February, 1870, by the appointment of General Walker as Superintendent, as already stated, and the clerical force was raised under a system of examinations, which began February 18, 1870, and were continued from time to time, and for which a total of 719 persons presented themselves. Of this number, 401 passed upon their first examination, while of 64 of those who failed on the first trial and were allowed a second examination 37 were successful. General Walker served as Superintendent of the Census until November 21, 1871, when he was made Commissioner of Indian Affairs, remaining, however, in charge of the census as acting superintendent, by request of the Secretary of the Interior, but receiving only the compensation attached to the office of Commissioner of Indian Affairs. Upon his resignation of this office January 31, 1873, to accept a position in private life, he was requested by the Secretary of the Interior to continue in charge of matters relating to the census, so that the continuity of plan and procedure might not be unnecessarily interrupted, and, for that purpose, received an appointment as Superintendent of the Census, without salary, and remained in charge until his appointment by the President April 1, 1879, as Superintendent of the Tenth Census, under the new law of March 3, 1879. The work of compiling the results of the census, for a portion of which a tallying machine, invented by Col. Charles W. Seaton, was used with good results, was completed in the latter part of the year 1872, and the

census office, organized for the purposes of the ninth census, was closed July 1, 1873, the former chief clerk of the office being retained in charge of the census records at Washington.

The results of the ninth census were published, under authority of the joint resolution of April 13, 1871, in three quarto volumes, one relating to population and social statistics, one to vital statistics, and one to statistics of industry and wealth. There was also a compendium authorized by the concurrent resolution of May 31, 1872, and a statistical atlas, based upon the returns of the ninth census, and compiled by Francis A. Walker, under the provisions of the act of March 3, 1873.

The volume devoted to population and social statistics contains, besides the tables of selected ages, sex, race, nationality, and occupations, the statistics of school attendance and illiteracy, of schools, libraries, newspapers and periodicals, churches, pauperism and crime, and of areas, families, and dwellings; and, in addition, the detailed report of the operations of the census office for the year 1871, made under date of December 26, 1871, by Superintendent Walker, in which considerable space is devoted to a consideration of the difficulties and limitations of the census work, embodying remarks upon the thoroughness of the enumeration, complaints against the census, the essential viciousness of a protracted enumeration, defects of the census law, changes in the schedules of inquiry, and the errors and deficiencies in the census returns. The statistical tables are also accompanied by notes and explanations, whenever deemed necessary, indicating the degree to which the figures presented may be relied upon, and, as nearly as may be, the proportion of omission or error.

Maps and charts were employed, for the first time in the census, as a means of presenting graphically the highly interesting results and conclusions reached at the ninth census period, pertaining to the density of the population; the distribution of the colored and foreign elements, and of the natives of certain specified foreign countries; illiteracy; wealth; the range and degree of prevalence of certain diseases; range and degree of cultivation of leading agricultural products; physical characteristics of the country; and the acquisition and transfer of territory from 1780 to 1870, with a chapter of historical notes respecting the acquisition of the territory of the United States, the erection of existing and obsolete political divisions, and their successive changes in organization and area.

The total population returned at the census of 1870 was 38,558,371, (a) and the total cost of this census was \$3,421,198.33, this being the whole amount appropriated for the ninth census.

---

<sup>a</sup> The census of 1870 was very deficient in the Southern States, and it has since been demonstrated by the census officials that the population in 1870 was approximately 39,818,449, instead of 38,558,371, as given in the report of that census.

**THE TENTH CENSUS: 1880.**

An effort was made to have a national census taken in 1875, the suggestion of Superintendent Walker meeting with the approval and recommendation of the Secretary of the Interior in three annual reports and forming a part of two of the annual messages of President Grant. Such a census seemed highly desirable, not only on account of the long interval between the decennial enumerations, causing the information gathered at one decennial period to become of little practical value after the expiration of the first half of the ten-year period, but also because it would constitute a noble monument to the progress of the United States during the first century of its political life. It was not contemplated, however, to use the results for the reapportionment of Congressional representation, and the proposed census was to be divested of all political character and no reapportionment was to be made until after the census of 1880. This proposal met with general approval on the part of the press of the country, and received the attention of the Centennial Committee of the House of Representatives, to whom it was referred, General Walker being called before a subcommittee to give his views concerning its feasibility.

This effort for a quinquennial census had no practical result, however, and no further action was had with respect to the census until the necessity of preparing for the tenth census was brought to the attention of Congress in 1878. General Walker, having held over as the Superintendent of the Census, was in an official position to emphasize the necessity of having more scientific methods adopted for the conduct of the census work, and, as an additional incentive, to make this census a centennial contribution of facts, in keeping with the spirit and enthusiasm of the period. The initiatory step was taken May 20, 1878, by the introduction of a bill by Mr. Garfield, but this was without practical result. Another bill was introduced January 7, 1879, by Mr. Cox, of New York, and a substitute for this bill was reported later in the month by Mr. Cox from the Select Committee on the Census, and the same bill was reported the same day in the Senate by Senator Morrill of the Senate Committee on the Tenth Census. This bill, substantially as reported, became a law March 3, 1879, but supplementary legislation, involving important amendments essential to the proper taking of the census, was had April 20, 1880, and the main appropriations for the census work were not made until June 16, 1880, two weeks after the enumeration had commenced. The census of 1880 was taken, therefore, in accordance with the provisions of these acts, by which a radical departure was made in the methods of enumeration and the scope of the census was increased to encyclopedic proportions.

By the new law, a census office was established in the Department of the Interior, and a Superintendent of the Census specifically pro-

vided for, to be appointed by the President, by and with the advice and consent of the Senate, at an annual salary of \$5,000, instead of, as under the law of 1850, a superintending clerk appointed by the Secretary of the Interior, at an annual salary of \$3,000. It was the duty of the Superintendent of Census, under the direction of the Secretary of the Interior, to superintend and direct the taking of the tenth census of the United States, in accordance with the laws relating thereto, and to perform such other duties as might be required of him by law, but the terms of service of the Superintendent and of the clerical force provided by the act of March 3, 1879, were to cease upon the completion of the work of compiling and publishing the census returns.

The entire inadequacy of the machinery provided by the law of 1850, under which the seventh, eighth, and ninth censuses had been taken, had been made clearly apparent, especially at the ninth census period, and the work of supervising the enumeration, heretofore charged upon the judicial marshals, was by the new law intrusted to a body of officers specially chosen for the work, to be known as supervisors of census, to be appointed by the President and confirmed by the Senate. The law provided that one or more supervisors of census should be appointed in each State and Territory, of which they should be residents, and that the Secretary of the Interior should designate the number to be so appointed in each State or Territory on or before March 1, 1880; but the total number was not to exceed 150. This was more than twice the number of judicial marshals, and provided the means for securing not only a higher degree of local knowledge on the part of the supervisor, of great value in the subdivision of his district, but also a closer and more direct supervision of the actual work of enumeration.

The Superintendent and supervisors were required, before entering upon their duties, to take and subscribe to an oath or affirmation to support the Constitution of the United States, and to perform and discharge the duties of their respective offices, according to law, honestly and correctly, to the best of their abilities.

Each supervisor of census was charged, under the act of March 3, 1879, with the performance, within his own district, of the following duties:

1. To propose to the Superintendent of Census the apportionment of his district into subdivisions most convenient for the purpose of enumeration.

2. To designate to the Superintendent of Census suitable persons, and, with the consent of said Superintendent, to employ such persons as enumerators within his district, one for each subdivision, and resident therein, who shall be selected solely with reference to their fitness, and without reference to their political or party affiliations, according to the apportionment approved by the Superintendent of Census.

3. To transmit to enumerators the printed forms and schedules issued from the census office, in quantities suited to the requirements of each subdivision.

4. To communicate to enumerators the necessary instructions and directions relating to their duties and to the methods of conducting the census, and to advise with and counsel enumerators in person and by letter, as freely and fully as may be required to secure the purposes of this act; and under the direction of the Superintendent of Census, and to facilitate the taking of the census with as little delay as possible, he may cause to be distributed by the enumerators, prior to the taking of the enumeration, schedules to be filled up by the householders and others.

5. To provide for the early and safe transmission to his office of the returns of enumerators, embracing all the schedules filled by them in the course of enumeration, and for the due receipt and custody of such returns pending their transmission to the census office.

6. To examine and scrutinize the returns of enumerators, in order to ascertain whether the work has been performed in all respects in compliance with the provisions of law, and whether any town or village or integral portion of the district has been omitted from enumeration.

7. To forward to the Superintendent of Census the completed returns of his district in such time and manner as shall be prescribed by the said Superintendent, and in the event of discrepancies or deficiencies appearing in the returns from his district, to use all diligence in causing the same to be corrected or supplied.

8. To make up and forward to the Superintendent of Census the accounts required for ascertaining the amount of compensation due under the provisions of this act to each enumerator of his district.

Each supervisor, upon the completion of his duties to the satisfaction of the Secretary of the Interior, received as compensation, without reference to the size of his district, the sum of \$500 in full for his services, while in certain cases an additional allowance for clerk hire was made, at the discretion of the Superintendent of Census.

The enumeration districts at the census of 1880 were made much smaller than at the previous censuses and were not, under the law, to exceed 4,000 inhabitants according to the census of 1870, and the boundaries were to be clearly described by civil divisions, rivers, roads, public surveys, or other easily distinguished lines. This was a great improvement over the law of 1850, which allowed an enumeration district to contain as high as 20,000 inhabitants, but which at the census of 1870 did not, as a matter of fact, average much more than 6,000 persons.

Another important change was the time in which the general enumeration, taken as of the 1st day of June, as before, was to be com-

pleted, being reduced to two weeks (12 working days) in cities having over 10,000 inhabitants under the census of 1870 and to one month (26 working days) in all other divisions, instead of covering, as at the ninth census, a period of, in round numbers, 100 working days. In the Territories and the States admitted into the Union since 1870, additional enumerators were authorized, if the census could not be properly taken within the time allowed, on account of the increase of population or of the physical features of the district.

The enumerators were required to be residents of their respective districts, except that, under the provisions of section 5 of the act of April 20, 1880, "in case it shall occur in any enumeration district that no person qualified to perform and willing to undertake the duties of enumerator resides in that district, the supervisor may appoint any fit person, resident in the county, to be the enumerator of that district." Each enumerator was required, as under the law of 1850, to be duly commissioned, under the hand of the supervisor of census of the district to which he belonged, and bearing the approval of the Superintendent of Census, and to take and subscribe to the oath or affirmation prescribed by the act for the proper performance of his duties, and to forward a copy thereof, duly authenticated, to the supervisor of his district before the date fixed for the commencement of the enumeration; and no enumerator was deemed qualified to enter upon his work until these provisions of the act had been conformed to.

Each enumerator was required by law "to visit personally each dwelling house in his subdivision, and each family therein, and each individual living out of a family in any place of abode, and by inquiry made of the head of such family, or of the member thereof deemed most credible and worthy of trust, or of such individual living out of a family, to obtain each and every item of information and all the particulars" required by the act of March 3, 1879, as amended by the act of April 20, 1880. In case no person should be found at the usual place of abode of such family or individual living out of a family competent to answer the inquiries made in compliance with the requirements of the census act, the enumerator was directed by the law "to obtain the required information, as nearly as may be practicable, from the family or families, or person or persons, living nearest to such place of abode."

Instead of the two copies of the schedules required under the law of 1850, the enumerator was directed to forward the original schedules, duly certified, to the supervisor of his district, but before doing this, he was required, under the terms of section 6 of the act of April 20, 1880, to make and file in the office of the clerk of the county court or in the office of the court or board administering the affairs of the county to which his district belongs, a list of the names, with age, sex, and color, of all persons enumerated by him, which he shall certify to

be true, and for which he shall be paid at the rate of 10 cents for each 100 names. He was also required to give notice by written advertisement at three or more public places in his district that he would be at the court-house of said county on the fifth day after filing said list, not including Sunday, from 9 o'clock antemeridian to 6 o'clock postmeridian, and the following day, for the purpose of correcting his enumeration by striking out or adding the designation of persons improperly enumerated or omitted; and he was required at the time specified to correct, on such reliable information as he may obtain, all omissions and mistakes in such enumeration, swearing and examining witnesses for the purpose, if necessary, and to then make known to the bystanders, if any, the result of such inquiry for correction and the whole number of persons enumerated by him. In order to enable him to perform this additional duty, the time for making his return to the supervisor was extended fifteen days.

There were five general schedules of inquiry authorized, relating to population, agriculture, manufactures, mortality, and social statistics, as at the census of 1870, but several changes and additions were made in them in accordance with the requirements of the census acts. The general schedules used at the census of 1880 were much larger in size than those used in 1870, being about 21 by 15 inches, and spaces were provided on the population schedule for the entry of 50 names to each page.

The inquiries as to the value of real and personal estate owned and male citizens were dropped from the schedule relating to the population, and new inquiries added calling for a statement concerning each person enumerated of the relation to the head of the family, as wife, son, daughter, servant, boarder, or other; civil (or conjugal) condition, as single, married, widowed, or divorced; place of birth of parents, as State or Territory, or country, if of foreign birth; condition of health, as sick or temporarily disabled; physical disabilities, as maimed, crippled, bedridden, or otherwise disabled; and number of months unemployed during the census year, in connection with the return of profession, trade, or occupation.

The inquiries as to the conjugal condition and the birthplace of the parents of decedents were also added to the schedule relating to mortality, and, in addition, inquiries as to the length of residence in the county and the name of the place where the disease was contracted, if other than the place of death.

The schedule relating to productions of agriculture included not only new inquiries as to the tenure of farm, weeks of hired labor, cost for the year of building and repairing fences and of fertilizers purchased, but the inquiries concerning the various crops were very much amplified, including inquiries as to the acreage of the principal crops, and those relating to live stock to include, in addition to the number on hand June 1, 1880, the movement during the year.

The schedule relating to manufactures contained new inquiries as to the greatest number of hands employed at any one time during the year, the number of hours in the ordinary day of labor from May to November and from November to May, the average daily wages paid to a skilled mechanic and to an ordinary laborer, five details as to months in operation on full and part time, and ten details as to the power used in manufactures. The law also made provision, in the discretion of the superintendent, for special schedules for separate industries, and further provided that the schedules of manufactures could be withdrawn from the enumerators of the several subdivisions, whenever the superintendent should deem it expedient, and the collection of these statistics charged upon experts and special agents, to be employed without respect to locality. Under this provision of the law, the schedules for manufacturing industries were withdrawn in 279 cities and towns, and in all but 31 cities a single special agent only was required to do the work. In addition, experts were charged with the collection of the statistics relating to certain industries, to be gathered throughout the country, under the direction of these experts, without reference to locality. These experts were also charged with the classification and analysis of the returns, and the results were published in a series of special reports or monographs. The industries for which the statistics were so collected by experts included not only the manufactures of iron and steel; cotton, woolen, and worsted goods; silk and silk goods; chemical products and salt; coke and glass; and shipbuilding, but also the fisheries and mining in all its branches, including the production of coal and petroleum.

The Superintendent of Census was also authorized, in his discretion, to withdraw the mortality schedule in localities where an official registration of deaths is maintained, and to obtain the required statistics from the official records, paying therefor such sum as might be necessary, not exceeding the rates authorized to be paid to the enumerators for a similar service. The mortality schedules were accordingly withdrawn from the enumerators in Massachusetts, New Jersey, and the District of Columbia and in 19 cities, including all the leading cities in the country, and the statistics of deaths compiled from the registration records. Of the whole number of deaths reported from all sources in 1880 (756,893), not quite one-fourth (178,645) were secured from registration offices, and the enumerators were, to that extent, entirely relieved from this duty. The total population represented by these registration areas was 8,538,366, or substantially one-sixth of the entire population of the country.

The collection of the social statistics, authorized by schedule No. 4, was also withdrawn from the general enumerators, under the provisions of section 18 of the act of March 3, 1879, and the information was collected either wholly by experts and special agents appointed without regard to locality, or partly by special agents and partly by corre-

spondence. Some part of the detailed information called for by the supplemental schedules relating to the insane, feeble-minded, deaf and dumb, and blind, was obtained through the medium of the census enumerators, so far as these classes were found among the general population, but the most of this information was obtained by consultation and correspondence with the officers of the institutions maintained for their special care and treatment, the work being prosecuted under the direction of an expert, to whom was also intrusted the collection of the statistics relating to crime, pauperism, and benevolence. Experts and special agents were also employed to collect the statistics relating to the other topics covered by the schedule on social statistics, namely, valuation, taxation, and indebtedness; religion; libraries; colleges, academies, and schools; newspapers and periodicals, and wages. The law also provided for the collection of detailed information as to the condition and operations of railroad corporations, incorporated express companies, and telegraph companies, and of life, fire, and marine insurance companies, and, in addition, the Superintendent of Census was required to collect and publish the statistics of the population, industries, and resources of Alaska with such fullness as he might find expedient and practicable, and to make an enumeration, through special agents or other means, of all Indians not taxed within the jurisdiction of the United States, with such information as to their condition as could be obtained.

Section 10 of the act of March 3, 1879, specified the manner in which the compensation of enumerators should be ascertained and fixed, by which an allowance not exceeding 2 cents for each living inhabitant, 2 cents for each death reported, 10 cents for each farm, and 15 cents for each establishment of productive industry enumerated and returned could be made in subdivisions where the Superintendent of Census deemed such allowance sufficient, and he was also required at least one month in advance of the enumeration to designate the subdivisions to which these rates should apply. For all other subdivisions, the law required that rates of compensation should be fixed in advance of the enumeration by the Superintendent of Census, with the approval of the Secretary of the Interior, according to the difficulty of enumeration, having reference to the nature of the region to be canvassed, and the density or sparseness of settlement, or other considerations pertinent thereto; but the compensation allowed to any enumerator in any district was not to exceed an average of \$4 per day of ten hours actual field work each in any district east of the one-hundredth meridian and \$6 per working day of equal length in any district west of the one-hundredth meridian.

Under this provision of the law, uniform rates of compensation were allowed as follows: Five cents for each death returned, 15 cents for each establishment of productive industry reported on the general

schedule of manufactures, and 25 cents for each establishment of productive industry reported on the special schedules of manufactures. For the return of living persons and of farms, the rates allowed were varied according to the varying ease or difficulty of enumeration, the minimum allowance being  $12\frac{1}{2}$  cents for each farm reported, and 2 cents for each living inhabitant returned. These minimum rates were paid generally in cities and incorporated towns and villages, and somewhat higher rates in less thickly settled districts. In a few districts in the Territories and sparsely settled States per diem rates of from \$4 to \$6 were allowed and paid, following the limitations prescribed by the census act. In addition, supplemental schedules were used in enumerating the defective, dependent, and delinquent classes, as already stated, and for each of these schedules, which were seven in number, the enumerators were allowed a uniform rate of 5 cents for each person returned thereon. Each enumerator was allowed, in addition, 10 cents for each 100 names in the copy of his schedule required to be made and deposited with the county clerk, and \$2.50 per day for the two days' additional service required for the correction of his schedule of inhabitants, under the provisions of section 6 of the act of April 20, 1880.

The experts and special agents employed to collect the manufacturing and other statistics withdrawn from the general enumerators were required to take the same oath and were given equal authority with the enumerators, and they received compensation at rates fixed by the Superintendent of Census, with the approval of the Secretary of the Interior, not to exceed, in any case, \$6 per day and actual traveling expenses.

Under the law the Superintendent of Census, with the consent of the President, could remove at any time any supervisor of census and fill any vacancy thereby caused or otherwise occurring, and similar authority was given to a supervisor of census to remove, with the consent of the Superintendent of Census, any enumerator in his district and to fill any vacancy that might occur from that or other reason. In all such cases, however, but one compensation could be allowed for the entire service, to be properly apportioned by the Superintendent of Census.

Each enumerator was required to make daily reports to the Superintendent of Census and to the supervisor of his district of the number of persons, farms, etc., enumerated by him each day, and also a statement of the time actually and necessarily occupied in this service, postal cards, properly printed and addressed, being provided for the purpose. He was also required to date and sign each page of the population schedule, and upon the completion of his work to append a written certificate that he had completed the enumeration of the

district assigned to him, and that the returns had been duly and truthfully made in accordance with law and his oath of office.

There were, at the census of 1880, in all 31,382 enumerators, and their average daily earnings were as follows: 964, or 3.07 per cent, earned \$2 and less; 2,908, or 9.27 per cent, from \$2 to \$2.50; 5,565, or 17.73 per cent, from \$2.50 to \$3; 7,529, or 23.99 per cent, from \$3 to \$3.50; 12,588, or 40.11 per cent, from \$3.50 to \$4; 630, or 2.01 per cent, from \$4 to \$4.50; 152, or 0.49 per cent, from \$4.50 to \$5; 157, or 0.50 per cent, from \$5 to \$5.50, and 889, or 2.83 per cent, from \$5.50 to \$6.

Penalties were also provided by the census act, by which it was made a misdemeanor for any supervisor or enumerator, after having taken and subscribed the oath required by the act, to neglect or refuse, without justifiable cause, to perform the duties required of him, or to communicate, without the authority of the Superintendent of Census, to any unauthorized person any statistics of property or business included in his return, and upon conviction to forfeit a sum not exceeding \$500; and, also, if he should willfully and knowingly swear or affirm falsely, he should be deemed guilty of perjury, and on conviction to be subject to an imprisonment of not exceeding three years or to a fine of not exceeding \$800; or, if he should willfully and knowingly make false certificates or fictitious returns, he should be deemed guilty of a misdemeanor, and upon conviction of either offense, he should forfeit and pay a sum not exceeding \$5,000 and be imprisoned not exceeding two years. It was also provided that if any person should receive or secure to himself any fee, reward, or compensation as a consideration for the employment of any person as enumerator or clerk, or should in any way receive or secure to himself any part of the compensation provided in this act for the services of any enumerator or clerk, he should be deemed guilty of a misdemeanor, and, on conviction thereof, should be fined not less than \$500 nor more than \$3,000, in the discretion of the court.

The law further provided penalties for the failure or refusal on the part of any person more than 20 years of age belonging to any family residing in any enumeration district, or, in the absence of the heads and other members, of any agent of any family, to render a true account to the best of his or her knowledge of every person belonging to such family, if so required, and also in the case of similar failure or refusal on the part of any officer or agent of a corporation from which answers were required on any of the schedules provided for by the census act.

All mail matter of whatever class relating to the census, if properly addressed and indorsed, was to be transported free of postage, subject to a penalty for private use of \$300.

The Secretary was also authorized, in his judgment, to call upon any

other department or officer of the Government for information pertaining to the enumeration required by the census act.

Provision was also made for an interdecennial census, to be taken by any State or Territory, through its duly appointed officers or agents, during the two months beginning with the first Monday in June of the year which is the mean between the decennial censuses of the United States, according to schedules and forms similar in all respects to those used in the United States census, and upon a full and authentic copy of said census being deposited with the Secretary of the Interior on or before the 1st of September following, such State or Territory was to receive, upon the requisition of the governor thereof, a sum equal to 50 per cent of the amount paid to all supervisors and actual enumerators within such State or Territory at the United States census next preceding, increased by one-half the percentage of gain in population in such State or Territory between the two United States censuses next preceding. This provision of law was only applicable to the period between 1880 and 1890, not being reenacted in the act governing the eleventh census, and, in accordance with its requirements, censuses were taken in 1885 in the States of Florida, Nebraska, and Colorado, and in the Territories of New Mexico and Dakota, and the copies required under the act were filed in the office of the Secretary of the Interior, but no publication of the returns was made so far as the United States Government was concerned.<sup>(a)</sup>

Gen. Francis A. Walker was appointed Superintendent of Census April 1, 1879, by the President, under the provisions of the act of March 3, 1879, and immediately began the organization of the census office by the appointment as chief clerk of Col. Charles W. Seaton, a chief of division at the census of 1870 and the superintendent of the New York State census of 1875.

During the period preceding the date of the enumeration (June 1, 1880) the work of the census office consisted of the necessary preparations for the general enumeration and of the collection of certain classes of statistics which, under the law, were withdrawn from the enumerators, and for this service clerical appointments were made at successive dates, as the exigencies of the service required. There were 44 employees in the census office on the 1st of December, 1879, 121 on the 1st of May, 1880, and 245 on the 1st of June, 1880, and this number had increased to 448 on August 1, to 737 on September 1, and to 1,084 on December 1. The maximum of clerical force was reached on the 15th of March, 1881, when the number of employees of all grades was 1,495.

---

<sup>a</sup> Several other States took a census in 1885, notably Massachusetts, Rhode Island, District of Columbia, Kansas, Oregon, New Jersey, Wisconsin, Iowa, Minnesota, and Michigan in 1884, but under the provisions of State laws and wholly at the expense of the State.

The compilation of the results concerning the population was made on the tallying machines invented by Colonel Seaton and used for a limited period at the census of 1870, and for which he was paid the sum of \$15,000, by act of June 10, 1872, in full of all claims against the Government for their use at the ninth or any subsequent census.

By the exhaustion of the census appropriations during the first half of 1881, the work of compiling the census returns had to be carried on, by arrangement with the Secretary of the Interior, by a volunteer force of about 700 clerks until after the necessary appropriations were made in January, 1882, for the payment of this force for voluntary services rendered, without claim against the Government, and for the continuation of the work.

General Walker resigned as Superintendent of Census November 3, 1881, to accept the position of president of the Massachusetts Institute of Technology, and was succeeded by Col. Charles W. Seaton, the chief clerk of the office, who entered upon his duties November 4, 1881, and served until March 3, 1885, when the census office was abolished. For the completion of the unfinished work of the tenth census, a census division was then established in the office of the Secretary of the Interior, and upon its substantial completion the census division was done away with, and a census clerk appointed July 1, 1886, who remained in charge of the census records until the organization of the census office for the purposes of the eleventh census in April, 1889.

The printed reports of the census of 1880 cover a wide range of subjects and occupy 22 large quarto volumes, aggregating 19,305 pages, besides a compendium, in two parts, comprising a total of 1,898 pages.

The publication of these reports was not completed until late in 1888, while for two or three subjects, such as churches, educational institutions, libraries, and insurance, for which most of the material was collected and partly compiled, no report was ever published, with the exception of a few general tables relating to insurance and public schools contained in Part 2 of the Compendium. The statistics of the fisheries, which were collected in cooperation with the United States Commission of Fish and Fisheries, were not published as a part of the census report, but were included in a series of special reports published by the Commissioner of Fisheries.

The various volumes of the census report for 1880 were illustrated by maps and diagrams, as at the census of 1870, but the cartographic method of presentation was very much amplified and extended at the census of 1880.

The census of 1880, considered with respect to the number and variety of the subjects which were investigated, and the completeness

of detail with which the results were presented, marks the beginning of the third era in census taking in this country. The three censuses taken under the law of 1850, although very decided improvements over the earlier enumerations in point of number of details covered, were, nevertheless, deficient in many respects, and, owing to the manner in which the data were collected by officers appointed for a different purpose, and in many respects beyond the jurisdiction and control of the department having the supervision of the census, the results were neither complete nor reliable, and, aside from the mere numbers of the population, did not represent true conditions at each census period. The census of 1880 was not without its faults, it is true, but the change in the methods of supervising and collecting the data and the employment of experts in making the special investigations resulted in much better returns and enabled the census officials to give to the country more accurate statements, presented in great detail, concerning its population, wealth, industries, and varied resources.

The total population of the United States at the census of 1880 was 50,155,783.

The total cost of the tenth census was \$5,790,678.40, of which \$134,489.40 was paid to the supervisors as compensation and for clerk hire and miscellaneous expenses; \$2,095,362.02 to the enumerators; \$815,534.38 for printing, engraving, and binding, and \$2,745,292.60 for all other expenses, including the cost of special agents' work, salaries of officers and employees at Washington, and miscellaneous and contingent expenses.

#### THE ELEVENTH CENSUS: 1890.

The eleventh census was taken under the provisions of the act of March 1, 1889, which was modeled upon the act which governed the work of the census of 1880. It was not contemplated originally to make the census of 1890 quite so comprehensive as its predecessor, but, in effect, the same schedules of inquiries were authorized and, in addition, the Superintendent of Census was directed, under the authority of the Secretary of the Interior, to cause an enumeration to be made, by means of a special schedule, of the name, organizations served in, and length of service of surviving Union soldiers, sailors, and marines who had served in the war of the rebellion, and the widows of such as had died; to ascertain, by an inquiry on the population schedule, the number of negroes, mulattoes, quadroons, and octoroons, and, at the time of the general enumeration or prior thereto, as the Secretary of the Interior might determine, to collect the statistics of and relating to the recorded indebtedness of private corporations and individuals, and make report thereon to Congress. The act of February 22, 1890, also made it the duty of the Superintendent of Census

to ascertain the number of persons who live on and cultivate their own farms, the number who live in their own homes, the number who hire their farms and homes, the number of farms and homes which are under mortgage, the amount of mortgage debt, the value of the property mortgaged, and whether such farms and homes have been mortgaged for the whole or part of the purchase money for the same or for other purposes, and the rates of interest paid upon mortgage loans; and for the accomplishment of this purpose, an appropriation of \$1,000,000 was made, in addition to the regular census appropriations. The number of farms and homes owned and hired, and of those owned the number free and mortgaged were obtained by the addition of five inquiries on the population schedule, while the supplemental information as to the value of the property so mortgaged, the amount of the mortgage debt, and the object for which the debt was incurred, was obtained by correspondence and special agents. The information concerning the recorded indebtedness of private corporations and individuals was abstracted by special agents from the public records in every county in the United States.

Under the provisions of the act of March 1, 1889, Hon. Robert P. Porter was appointed by the President April 17, 1889, as Superintendent of Census at an annual salary of \$6,000, instead of \$5,000, as in 1880. Mr. Porter qualified three days later and entered at once upon the preliminary work necessary to the enumeration, which began on the first Monday in June, 1890, the 1st day of June falling on Sunday, and which was conducted in the same manner and under the same general conditions as in 1880. There were 175 supervisors in 1890 instead of 150 as in 1880, and one or more were appointed in each State or Territory, exclusive of Alaska and the Indian Territory. Each subdivision assigned to an enumerator was not to exceed 4,000 inhabitants, as near as may be, according to estimates based upon the tenth census, and the enumeration was to be completed in two weeks in cities having over 10,000 inhabitants under the census of 1880 and in one month in all other subdivisions. Each enumerator, having been duly commissioned and qualified by his oath of office, was required to obtain all the information prescribed by the census act by a personal visit to each dwelling house and to each family, and in the absence of the head of the family or other competent person to procure the information from the person or persons living nearest to such absent person or family. The same penalties were provided as in 1880 for refusal to furnish information and for neglect to perform their duties or willful wrongdoing on the part of supervisors and enumerators. Daily reports were required from each enumerator, and he was also required to fill out and return a certificate of completion of the enumeration of his district the same as in 1880.

The schedules of inquiry intrusted to the census enumerators con-

sisted of the four general schedules relating to population, agriculture, manufactures, and mortality, eight supplemental schedules calling for special information concerning the defective, dependent, and delinquent classes, and the special schedule relating to Union survivors of the war of the rebellion. These schedules were sent out in bulk from the census office to the supervisors, and were distributed by the supervisors to the enumerators. Over 25,000,000 schedules, weighing more than 300 tons, were needed to supply the enumerators, and these schedules, from two-thirds to three-fourths of which came back in the form of completed returns, were carried by registered mail from the census office, through the supervisors, to the enumerators, and were returned by them to the supervisors and by the supervisors to the census office, without the loss of a single package.

As in 1880, the mortality schedule was withdrawn in certain States and cities, and the information obtained from the official registration records, while in the principal manufacturing centers the schedules of manufactures were also withdrawn and the statistics collected by special agents appointed for each city, town, or place.

The mortality schedules at the census of 1890 were wholly withdrawn from the enumerators and a copy made of the registration record in the States of Massachusetts, Connecticut, New Hampshire, Vermont, Rhode Island, New York, New Jersey, and Delaware, in 83 cities outside of these States, and in the District of Columbia. Of the whole number of deaths reported in 1890 (875,521), very nearly one-half (409,125), as against one-fourth in 1880, were obtained from the registration records of these States and cities, representing a population of 19,659,440, or more than three-tenths of the entire population of the country in 1890, as against one-sixth in 1880.

The schedules of manufactures were withdrawn in 1890 in 1,042 important manufacturing centers as against 279 in 1880, and the duty of collecting the statistics charged upon special agents.

The law further provided, as in 1880, for the employment of experts and special agents in making a special enumeration of all Indians living within the jurisdiction of the United States, a separate census of the population and resources of Alaska, and in obtaining complete statistics concerning mines and mining, the fisheries, churches, education, insurance, transportation, and wealth, debt, and taxation, the schedule for social statistics being withdrawn, as in 1880, from the general enumerators.

The schedules used by the enumerators at the census of 1890 were much smaller in size than those used in 1880, being about 15 by 11 inches, with the exception of the schedules of manufactures, which were 9 by 11½ inches. Furthermore, a family schedule was adopted for the enumeration of the population in 1890, that is, a separate schedule for each family enumerated, instead of the schedule in use

at the censuses from 1850 to 1880, inclusive, on each page of which the entries were made concerning from 40 to 50 persons. The adoption of the family schedule also permitted its use as a "prior" schedule, for which provision had been made in the laws governing the censuses of 1880 and 1890, wherever deemed advisable, but this was not attempted to any extent, even in the larger cities, principally for want of time in which to make the necessary preparations.

The supervisors of census, instead of receiving, as in 1880, the fixed sum of \$500, without regard to the size of the district, were to be compensated, under the act of March 1, 1889, in addition to a fixed sum of \$125, at the rate of \$1 per 1,000 inhabitants in thickly settled districts and \$1.40 per 1,000 inhabitants in sparsely settled districts; but no supervisor was to receive in the aggregate less than \$500, which, by an act approved January 23, 1890, was increased to \$1,000. Under this provision as amended all but four supervisors, those for the State of Massachusetts (a single district) and the cities of New York, Chicago, and Philadelphia, received the minimum sum of \$1,000. Certain sums were also allowed to supervisors, in the discretion of the Superintendent of Census, for clerk hire and miscellaneous expenses.

The maximum and minimum rates of compensation, both per capita and per diem, to be paid enumerators at the census of 1890 were fixed by the law, but the Superintendent of Census was given discretionary powers, with the approval of the Secretary of the Interior, as to the rate to be paid in each district. In accordance with these provisions of the law, three per capita rates were established, as follows: For each living inhabitant, 2, 2½, and 3 cents; for each farm, 15, 17½, and 20 cents; and for each manufacturing establishment, 20, 25, and 30 cents. Uniform rates were allowed in per capita districts of 2 cents for each entry on the mortality schedule, 5 cents for each record on the special schedule for surviving Union soldiers, sailors, etc., and 5 cents for each entry on each of the supplemental schedules. Three per diem rates of \$4, \$5, and \$6 were paid in certain districts where per capita rates were impracticable, on account of the difficulties of enumeration.

The whole number of enumerators who received compensation at the census of 1890 was 46,804, of whom 43,533 were regular enumerators, 2,226 were special enumerators for large institutions, etc., and 1,045 were enumerators appointed to reenumerate such districts or parts of districts in which the original work was improperly done. The enumerators who received per capita rates numbered 42,952, of whom 34,595 received the lowest rates, 5,247 the medium rates, and 3,110 the highest rates. Of the remaining 3,852 enumerators who were paid per diem rates, 2,203 received \$4 per day, 1,067 received \$5 per day, and 582 received \$6 per day. Of the enumerators who

received per capita rates, 18.79 per cent earned less than \$2 per day; 25.04 per cent from \$2 to \$2.50 per day; 22.71 per cent from \$2.50 to \$3 per day; 14.72 per cent from \$3 to \$3.50 per day; 8.97 per cent from \$3.50 to \$4 per day, and 9.77 per cent more than \$4 per day.

The compensation of experts and special agents was not to exceed \$6 per day and actual traveling expenses, as in 1880, but by subsequent legislation the Superintendent of Census was authorized to pay special agents in Alaska, in addition to their salaries, a per diem allowance, to cover all expenses of subsistence and transportation, not to exceed \$7 per day, while other special agents were given a per diem allowance in lieu of subsistence of \$3 per day.

The provision of the act of 1879 requiring each enumerator to make a duplicate of the name, age, sex, and color of all persons enumerated by him and to deposit the same in the office of the county clerk, and for which he was paid at the rate of 10 cents for each 100 names, was not repeated at the census of 1890, but a provision was substituted by which, upon the request of any municipal government, the Superintendent of Census was required to furnish such government with a copy of the names, age, sex, birthplace, and color or race, of all persons enumerated within the territory in the jurisdiction of such municipality, to be paid for by such municipal government at the rate of 25 cents for each 100 names.

The first returns of the enumerators were received in Washington during the week of June 14, and a few days later the work of counting the population was begun. The first announcement of population was made June 28, being that of the District of Columbia, and was followed by that of the city of New York on July 18, and by that of the city of Philadelphia on August 18. During the month of August the count for four States was completed and announced; during September for nine States and Territories, and during October for thirty-five States and Territories. The completed results for the entire country, according to the first "rough" count, were given to the public on October 28 and the "official" count, as finally determined, and upon which the new apportionment was based, on November 26, or in less than five months after the legal termination on June 30 of the time allowed for the enumeration. The last returns of the census of 1890 were received on November 10, having been delayed in the mails by being improperly addressed, being the returns of a single enumeration district which had to be retaken after the close of the regular work.

The first count of population was made direct from the schedules, by what is known as the family count, or the number of persons in each family enumerated. Two counts from the schedules for each enumeration district were made in each case by different clerks, and where differences appeared recounts were made. By this count was

obtained the population of States, Territories, counties, and all places of 8,000 inhabitants and upward. For the purpose of verifying the first or rough count, a second count, known as the dwelling-house count, was made, by means of which a new count of population was obtained, according to the number of persons returned in each dwelling house or place of abode visited by the census enumerators.

For the purpose of making the detailed tabulations concerning the population, the electric tabulating system of which Mr. Herman Hollerith is the inventor, was adopted, after a preliminary test of tabulating methods, and through the adoption of this system a much more complete presentation of the statistics of population was made than at any preceding census, including the statistics of conjugal condition, which were entirely omitted in 1880, although the inquiry was made on the population schedule, and a detailed statement of parentage by nationalities, for which only partial tabulations were made at that census. The Hollerith system of tabulation, involving the use of a punched card for each person returned in the census, to which was transferred by means of a mechanical punch all the various details as to color, sex, age, conjugal condition, place of birth, parentage, occupation, etc., and the subsequent counting of these cards by the electric tabulating machines, was used in compiling all the statistics relating to population and mortality, and to crime, pauperism, and benevolence.

The census office was organized in the latter part of April, 1889, and the force was steadily increased from 30 in May to over 100 in September, over 400 in January, 1890, and over 1,100 in May, just prior to the commencement of the enumeration, this large force being principally engaged in the work dependent upon several of the special subjects of investigation already in hand and also in the necessary work of preparation for the general enumeration. The force was increased to over 1,800 in July, 1890, over 2,200 in October, and so on until the maximum force of 3,143 was reached in May, 1891, practically one-half of whom were females. Appointments to the clerical force at the census of 1890 were not made under the civil-service rules and regulations, but applicants for clerical positions were examined in the census office by a board of examiners, in accordance with rules approved by the Secretary of the Interior, to whom the census act gave discretionary authority relative to all examinations for appointment and promotion. The work of the census was divided among twenty-five divisions, each devoted to some special branch or feature.

Mr. Porter served as Superintendent of Census until his resignation July 31, 1893, and the work was completed under the direction of the Commissioner of Labor, in accordance with the terms of the act of October 3, 1893, and under the provisions of which the Commissioner of Labor was designated by the President on October 5, 1893, to take charge of the work. By the deficiency act of March 2, 1895,

the census office was abolished and the unfinished work transferred to the office of the Secretary of the Interior, but by the same act the Secretary was authorized to continue the services of the Commissioner of Labor in charge of the completion of the eleventh census. The census division, established March 4, 1895, in the office of the Secretary of the Interior, under the act of March 2, 1895, remained in force until July 1, 1897, from and after which date provision was made for a census clerk charged with the proper care and preservation of the census records. The Commissioner of Labor, however, remained in supervisory charge of the census work until October 5, 1897, when, at his own request, he was relieved by the Secretary of the Interior, serving from October 1, 1895, without compensation so far as his census duties were concerned.

The results of the eleventh census are contained in 25 quarto volumes, comprising 21,410 pages, besides a compendium in three parts, an abstract, and a statistical atlas.

The final volume of the report of the census of 1890, exclusive of the statistical atlas, was issued in 1897, the last plate proofs being returned to the printing office July 31 of that year, but this does not represent, in reality, the date when all the essential preliminary results of the eleventh census were given to the public. Following the practice established by General Walker in 1880 of issuing bulletins from time to time containing the preliminary results of the census, Superintendent Porter made a much more extended use of the census bulletin and by this means published, subject to final revision, all the principal results as soon as they became available. The first bulletins of preliminary results were issued in August, 1890, and the final bulletin was issued May 18, 1895, representing, in all, over 6,000 pages of matter which was published in this way. It can with reason be considered, then, that May 18, 1895, represents the date of sending the final general results of the eleventh census to the public—a fact that is most gratifying, when the magnitude of the work is considered.

The special enumeration of the names and service of the survivors of the war of the rebellion called for by the census act was made and considerable work was done toward the correction and classification of the results. No provision was made by Congress, however, for the printing of this huge directory of surviving veterans of the late war, which, if published, would occupy 8 large quarto volumes of 1,000 pages each, and the schedules were subsequently turned over, by direction of Congress, to the Bureau of Pensions. Incidental thereto, however, by means of a special inquiry on the population schedule, it was possible to show for all surviving veterans, Union and Confederate, at the time of the census, their approximate number, present ages and occupations, and general nativity and color, and these results are presented in part 2 of the report on population.

All of the volumes of the census report are profusely illustrated by maps and diagrams, as at the census of 1880, and the more important and valuable of them are reproduced in the statistical atlas, which Congress directed should be prepared, the same as for the census of 1870. There was no statistical atlas prepared as a government publication for the census of 1880, but one was published by Charles Scribner's Sons as a private enterprise.

The population of the United States on June 1, 1890, as shown by the general enumeration for all the States and organized Territories, was 62,622,250. Including 325,464 Indians and other persons in the Indian Territory and on Indian reservations and 32,052 persons in Alaska, specially enumerated under the law, the entire population of the country was 62,979,766.

The total cost of the eleventh census was \$11,547,127.13, and of this amount \$260,553.10 was paid to supervisors as compensation and for clerk hire, etc.; \$2,485,861.57 for the compensation of the census enumerators; approximately, \$1,531,500 for printing, engraving, and binding, this sum being the total amount appropriated for that purpose, and \$7,269,212.46 for all other expenses. Of the whole amount appropriated at the eleventh census, \$1,330,000 was specifically provided for covering the cost of the special investigation relating to farms, homes, and mortgages, under the act of February 22, 1890, and was practically all expended for that purpose.

### CONDITION OF CENSUS RECORDS.

By the organic law of 1790, under which the first enumeration of the inhabitants of the United States was made, it was provided that the original returns transmitted to the marshals by the assistants appointed by them to make the enumeration should be filed by said marshals with the clerks of their respective district courts for careful preservation, and this provision remained in force at the first four censuses. At the censuses of 1830 and 1840, however, the assistants were required to forward two copies of their returns to the marshals, one copy to be forwarded to the Secretary of State and one copy to be filed with the clerks of the district or superior courts. It was also provided by the resolution of May 28, 1830, that the original returns filed in the offices of the clerks of the several district and superior courts, under the provisions of the law governing the first four censuses, should be transmitted to the Secretary of State, and these returns, together with the copies of the returns of the censuses of 1830 and 1840, were transferred to the custody of the Department of the Interior upon its organization in 1849, the work of the census being made a function of that Department. At the censuses of 1850, 1860, and 1870, a copy of the returns of the assistant marshal was

required to be transmitted to the Secretary of the Interior, in addition to the copies required to be deposited with the clerks of county courts and with the secretaries of the States and Territories, but at the census of 1880 the original schedules were sent direct to the central office at Washington, and a copy of only a part of the information returned on the population schedule deposited with the clerks of the county courts. At the census of 1890, the original schedules were forwarded to Washington, as in 1880, and no copy of any kind was required to be filed in the offices of the county clerks, but municipalities were furnished at Washington, upon their request, with a copy of certain details on the population schedule for such municipalities, in the manner prescribed by the census act.

Under the provisions of the several census laws, therefore, there should be in the custody of the Department of the Interior a complete set of the returns made at the eleven decennial enumerations from 1790 to 1890, inclusive, but an examination of the census records on file in the Department of the Interior building shows that, in all probability, the provisions of law requiring the original returns of the first four enumerations to be transmitted to the Secretary of State were not fully complied with by the clerks of the district and superior courts, as in many instances the returns for the entire State or district are missing. These omissions are best shown by the following table:

States and Territories.	Date of organization as a Territory or admission as a State.	Schedules missing for census years specified.	Population reported at census specified.
Alabama .....	Mar. 3, 1817	1820	127,901
Arkansas .....	Mar. 2, 1819	1820	14,255
Colorado .....	Feb. 28, 1861	1860	34,277
Delaware .....	(a)	1790	59,096
Georgia .....	(a)	1790	82,548
		1800	162,686
		1810	252,438
Illinois .....	Mar. 1, 1809	1810	12,282
Indiana .....	July 4, 1800	1800	5,641
		1810	24,520
Kentucky .....	June 1, 1792 (b)	1790	73,677
		1800	220,965
Michigan .....	June 30, 1805	1810	4,762
		1820	8,765
Mississippi .....	April 7, 1798	1800	8,860
		1810	40,352
Missouri .....	Dec. 7, 1812	1810	20,845
		1820	66,557
New Jersey .....	(a)	1790	184,139
		1800	211,149
		1810	245,562
		1820	277,426
Ohio .....	Nov. 29, 1802 (b)	1800	45,365
		1810	230,760
Tennessee .....	June 1, 1796 (b)	1790	35,691
		1800	105,602
		1810	261,727
Virginia .....	(a)	1790	747,610
		1800	880,200
Washington .....	Mar. 2, 1853	1860	11,594

a One of the original thirteen States.

b Date when originally admitted as a State; no territorial organization

The foregoing table shows that, for the various States and Territories specified, there are no returns on file for the census year or years indicated, but for which period the population as specified in the last column is reported, and that the missing returns for the several States and Territories relate to one or more of the first four enumerations, as the case may be, with the exception of Colorado and Washington, for which the missing returns are those of the census of 1860.

The schedules on file in the Department of the Interior, so far as they relate to the first ten enumerations, from 1790 to 1880, inclusive, are in bound form and are contained in 4,597 volumes, relating to the various subjects specified in the following table:

Census years.	Population.	Industry.	Agriculture.	Mortality.	Social statistics.
1790.....	27				
1800.....	27				
1810.....	44				
1820.....	75	21			
1830.....	190				
1840.....	273	81			
1850.....	<i>a</i> 669	21	101	32	20
1860.....	<i>b</i> 760	8	108	16	19
1870.....	650	32	114	27	4
1880.....	824	72	321	51	<i>c</i> 60
Total.....	<i>d</i> 3,539	185	644	126	103

*a* 588 volumes of schedules for free inhabitants; 81 volumes of schedules for slave inhabitants.

*b* 711 volumes of schedules for free inhabitants; 49 volumes of schedules for slave inhabitants.

*c* For defective, dependent, and delinquent classes only.

*d* There are also on file at the Department of the Interior 5 volumes of schedules used in the special census of Minnesota ordered by Congress in 1857.

A thorough examination of these bound volumes of schedules has not been made, so that it is impossible to state, especially for the earlier enumerations for which no printed forms of schedules were used, whether the schedules relating to any specified subject are complete for the entire country at each census period, or whether a careful examination would not reveal the absence of schedules for a portion of a district or State, in addition to the States and Territories already specified, for which no returns whatever appear to be on file.

The general schedules relating to population and manufactures at the census of 1890 are still unbound, but it has been estimated that the population schedules alone, if bound in volumes of uniform thickness, would make about 30,000 volumes, owing to the form of the schedule (*a*) adopted for the eleventh census. All of the original schedules relating to mortality, crime, pauperism, and benevolence, and the special classes (deaf, dumb, blind, insane, etc.), and a portion of the transportation and insurance schedules were badly damaged by fire in March, 1896, and, by order from the Department of the Interior, were destroyed. The agricultural schedules, which it was determined not to bind for preservation in the Department of the Interior, were

*a* Family schedule, that is, a separate schedule for each family enumerated.

transferred to the custody of the Department of Agriculture, while the special veterans schedules were transferred, by direction of Congress, to the Pension Bureau, as already stated. The schedules relating to education, fisheries, mines and mining, and other special subjects, have been preserved, but it is doubtful if provision is made for binding any schedules other than those relating to population and manufactures.

### PERMANENT CENSUS BUREAU.

The necessity for the establishment of a permanent statistical bureau to which the work of the decennial census could be intrusted, in connection with other duties, was recognized, indirectly at least, as early as 1845. At that time two elaborate reports were made by a select committee of the House of Representatives urging the importance of establishing a bureau of commerce and statistics in the Treasury Department, and although no mention is made of the census work in either of these reports, this same committee, in another report (*a*) relative to certain errors in the census of 1840, to which the attention of Congress had been directed by various memorials, stated that the defects of this census form a strong argument for the establishment of a bureau of statistics.

Nothing came of this effort, however, and the Bureau of Statistics in the Treasury Department was not provided for until 1865.

Mr. De Bow, who superintended the preparation of the report of the seventh census, in the introduction to the Compendium of that census (*b*) makes a strong plea for the establishment of a regular statistical office, as a matter of economy and essential to the proper execution of the census, and in this connection used the following significant language:

Unless there is machinery in advance at the seat of Government no census can ever be properly taken and published. There is a peculiar education required for these labors which neither comes from zeal or genius, but is the result only of experience. They are the most irksome and trying imaginable, requiring inexhaustible patience and endurance, and baffling almost every effort after accuracy. Long familiarity can alone secure system, economy, and certainty of result. This office machinery exists in all European countries where statistics are the most reliable, but there has been none of it in the United States. Each census has taken care of itself. Every ten years some one at Washington will enter the hall of a department, appoint fifty or a hundred persons under him, who, perhaps, have never compiled a table before, and are incapable of combining a column of figures correctly. Hundreds of thousands of pages of returns are placed in the hands of such persons to be digested. If any are qualified it is no merit of the

---

*a* House Reports, Twenty-eighth Congress, first session, Vol. III, No. 579.

*b* Compendium of the Seventh Census, p. 18.

system. In 1840 returns were given out by the job to whoever would take them. In 1850 such was the pressure of work that almost any one could at times have had a desk. Contrast this with the English system and reflect that one individual, as heretofore remarked, presided over the census of 1801, 1811, 1821, and 1831. In Washington, as soon as an office acquires familiarity with statistics, and is educated to accuracy and activity, it is disbanded, and even the best qualified employee is suffered to depart. The Government may rely upon paying heavily for the experience which is being acquired.

No suggestion beyond this or provision was made, however, for a permanent census office at that time, but beginning with 1860 recommendations for the establishment of a national bureau of statistics were embodied in the annual reports of the Secretary of the Interior up to and including the year 1865. Secretary J. F. Thompson, in his last annual report dated November 30, 1860, suggested the propriety and importance of establishing a bureau of statistics, but beyond referring to the fact that once in each period of ten years the country is supplied with certain information regarding our agricultural, manufacturing, and mining interests, made no direct reference to the census. The report of Secretary Caleb B. Smith, the following year, under date of November 30, 1861, contained a recommendation for the establishment of a bureau of agriculture and statistics, upon which "would naturally devolve the charge of the census, for which timely preparations would be made, and its administration conducted with improved accuracy and ease." Secretary Smith renewed this recommendation in his annual report of November 29, 1862, and again in 1863 the need at the seat of Government of a bureau of national statistics was urged upon Congress, in the annual report of Secretary J. P. Usher, dated December 5, 1863, in which the statement was made that "such a bureau could be established now with but little outlay, and if made to include the duty of enumerating the population of the United States, for which purpose a bureau is now required to be temporarily organized every ten years, at considerable expense and labor, would effect a positive saving to the Treasury, while the work would be better performed, as the office would then be permanent, and the experience gained in the operations of one decade not wholly lost before the next was entered upon, as is now the case." The matter was again referred to by Secretary Usher in his annual report dated December 5, 1864, in which the importance of the organization of a permanent bureau of statistics, charged among other duties with that of compiling the census returns and superintending the publication thereof, was emphasized, while the report of Secretary James Harlan, under date of December 4, 1865, suggested the expediency of providing means to enable the making of annual reports on population, manufacturing, and other material interests.

Similar suggestions may have been made since for the establishment

of a central bureau of statistics at Washington, but no direct action toward providing for a permanent census office was taken by Congress until February 16, 1891, when the Senate adopted a resolution directing the Secretary of the Interior "to consider the expediency of the establishment of a permanent census bureau, and to embody the results of his consideration with a draft of a bill, should he consider it expedient, for the establishment of such census bureau, in a special report to be made to the Senate at the opening of the Fifty-second Congress." This resolution was referred by the Secretary of the Interior to the Superintendent of Census, Hon. Robert P. Porter, for his consideration, and his report was transmitted by the honorable Secretary of the Interior to the Senate December 7, 1891.<sup>(a)</sup> In this report Mr. Porter gave his own opinions, as well as those of others, and recommended the establishment of a permanent census bureau. The report, which was exceedingly valuable and exhaustive, was accompanied by a draft of a bill to establish a permanent census office and to provide for the taking of the twelfth and subsequent censuses, and contained a vast amount of evidence on the subject from statisticians, churchmen, representatives of commercial organizations, commissioners of agriculture, officers of boards of health, officers of institutions for the insane, deaf, dumb, and other defective classes, officers of State bureaus of labor, heads of great labor organizations, and others interested in having a permanent census organization. The National Board of Trade, at its twenty-first annual meeting, held in New Orleans in December, 1890, adopted resolutions appointing a committee to make a report contemplating permanence of statistical and enumerating officials, and a proper separation of the times in which enumeration of population is required by the Constitution and the collection of general statistical information. Many of the boards of trade and chambers of commerce memorialized Congress for the establishment of a permanent census office or adopted resolutions indorsing such movement.

In February, 1893, the Select Committee of the House of Representatives on the Eleventh Census, to whom had been referred a resolution instructing the committee to inquire into the expediency of establishing a permanent census bureau, submitted a report<sup>(b)</sup> containing the evidence of various parties who had appeared before it, and recommending the passage of a bill, which accompanied the report, similar in most respects to that drawn by Mr. Porter and submitted by the Secretary of the Interior in his report to the Senate.

No final action was taken by Congress with respect to either of these two bills, and nothing more was done toward providing for a perma-

---

<sup>a</sup> Senate Ex. Doc. No. 1, Fifty-second Congress, first session.

<sup>b</sup> House Reports, Fifty-second Congress, second session, No. 2393.

ment census office until March 19, 1896, when, by a joint resolution relating to the Federal census, the Commissioner of Labor was directed to report to the Congress, for its consideration, as soon as practicable, a plan for a permanent census service.

Following the passage of this joint resolution, a memorial (a) was presented to Congress by a joint committee appointed by the American Economic Association and the American Statistical Association to consider the question of the organization of the twelfth census, in which the attention of Congress was respectfully called to the importance of establishing at once a permanent and independent census office. The memorialists state that in so doing they are actuated by an earnest desire for the scientific development of statistics in the United States; that they represent learned societies, whose members come, through their professional duties, in constant, almost daily, contact with the work of the census; that they represent the point of view of those who use statistics, and that it is in the general interest that they plead for methods of census administration which would tend to increase its efficiency and heighten the value of its results. And in this connection the memorialists further say:

In many departments of statistical work the publications of the United States Government occupy an honorable place. Through the liberal provision which has been made in the past for statistical inquiry, the United States has been able to contribute substantially to the development of statistical methods and to the extension of statistical research. But the work of the Government is uneven, and sometimes fails to reach the highest standard. This is true of the census, the largest statistical undertaking of the Government, upon which money and effort are so generously lavished. There can not be a moment's doubt that this work should be brought to the highest possible standard of statistical excellence.

It is no reproach to the census as a whole, nor to the gentlemen who have administered the census office, to say that in many respects the census reports are unsatisfactory to us as students of statistics and to the people of the United States.

We allude particularly to the attempt to cover too much ground, the enormous cost of the undertaking, and the delay in the publication of the completed tabular results. These criticisms all grow out of the legislation under which the census is taken. The defects of our present temporary organization may be summarized under the following heads:

1. *Accumulation of inquiries at the same period of time.*
2. *The lack of continuity in census work.*
3. *The haste with which the whole machinery of the census is placed in motion.*

\* \* \* \* \*

The permanent and independent census furnishes the best guaranties for improvement in statistical work, if established under proper conditions. But it would be a grave misfortune to postpone the organization of such a bureau until shortly before the time for taking

the next census. We can not urge too strongly that consideration be given at an early date to this question. If, as it should, the census of 1900 is to be an advance over those of preceding years, thorough preparation for the work is indispensable. We are convinced that the gravest difficulty which has hitherto impeded the work of the census is the haste with which it has been planned and executed.

It is not alone in the interest of statistical science, but in the interests of the public, which has an undoubted right to the most accurate and prompt information which the census office can furnish, that we urge the adoption of a measure which will attain this end and mark distinct progress in the statistical work of the Government.

In accordance with the provisions of the joint resolution of March 19, 1896, the Commissioner of Labor, under date of December 7, 1896, submitted a report (*a*) on a plan for a permanent census service, in the form of a tentative bill providing simply for an organic administrative act, by which an independent census office was to be established, leaving the details of the twelfth and subsequent censuses to the officers, respectively, having them in charge. This report was referred to the Senate Committee on the Census, and on January 9, 1897, an informal hearing was had before the Senate Committee on the Census and members of the Committees on Appropriations of the Senate and House of Representatives, before which the Commissioner of Labor appeared, at the request of the chairman of the Census Committee. The bill practically as submitted by the Commissioner of Labor was introduced in the House January 14, 1897, by Mr. Sayers, of the Committee on Appropriations, to which committee it was referred, and in the Senate January 18, 1897, by Senator Chandler, the chairman of the Census Committee. Similar bills providing for a permanent census service, but charging the work upon the Department of Labor, were introduced later in the same month in the House and Senate by Mr. Sayers and Senator Chandler, respectively, and referred in the House to the Committee on Appropriations and in the Senate to the Committee on the Census. No result was reached, however, by either the House or Senate, and the matter of census legislation went over to the Fifty-fifth Congress.

## TWELFTH CENSUS LEGISLATION.

At the second session of the Fifty-fifth Congress a general bill providing for taking the twelfth and subsequent censuses, under the direction of the Secretary of the Interior, as heretofore, but limiting the work of the decennial enumeration to four subjects, was passed June 16, 1898, by the Senate, and this bill was later presented in the House and referred to a select committee on the twelfth census. At the third session of the same Congress a substitute bill was passed by the House February 6, 1899, calling for the establishment of a census office

---

*a* Senate Doc., Fifty-fourth Congress, second session, No. 5.

entirely independent of any department, but with the same limitation of the decennial work as provided for by the bill which passed the Senate at the close of the second session. In the bill which finally passed both Houses of Congress, as agreed upon in conference, and which was approved by the President March 3, 1899, a census office is established in the Department of the Interior, the chief officer of which is denominated the Director of the Census (instead of Superintendent of Census, as heretofore), to be appointed by the President and confirmed by the Senate. Provision is also made for the appointment by the President of an Assistant Director of the Census, who shall be a practical, experienced statistician, and for the appointment by the Director of the Census of five chief statisticians, who shall be persons of known and tried experience in statistical work; of a geographer, chief clerk, disbursing clerk, five expert chiefs of division, and the various clerks and employees essential to the prosecution of the census work. Under the provisions of this act, the census office was organized by the appointment by the President of Hon. William R. Merriam as Director of the Census, March 3, 1899, and of Dr. Frederick H. Wines as Assistant Director of the Census, March 5, 1899. The statistical organization of the office was later completed by the appointment by the Director of the following-named persons: William C. Hunt, chief statistician, population; William A. King, chief statistician, vital statistics; S. N. D. North, chief statistician, manufactures; Le Grand Powers, chief statistician, agriculture; Walter F. Willcox, chief statistician, methods and results; and Henry Gannett, geographer. By the act of March 3, 1899, the Director of the Census is given the entire direction and control of the work, including the appointment of the statisticians, clerks, and other employees of the census office, as above stated, but the act provides that nothing therein contained shall be construed to establish a census bureau permanent beyond the twelfth census. The decennial work is limited to inquiries relating to population, mortality, agriculture, and manufactures, but provision is made after the completion of the decennial work for the collection of statistics relating to various special subjects, such as the insane, feeble-minded, deaf, dumb, and blind; crime, pauperism, and benevolence; deaths and births in registration areas; social statistics of cities; public indebtedness, valuation, taxation, and expenditures; religious bodies; electric light and power, telegraph and telephone business; transportation by water, express business, and street railways; and mines, mining, and minerals.

#### GROWTH OF CENSUS INQUIRIES.

In the historical review of the Federal census it has been shown that there was constant inquiry concerning the population at the first six enumerations and that this inquiry was supplemented by attempts to

secure additional data concerning manufactures in 1810 and 1820, and concerning mining, commerce, agriculture, manufactures, fisheries, and schools in 1840. The inquiries relating to these subjects were made, however, on schedules prescribed, in most cases, by the several census acts, in which the detail required was expressly stipulated and beyond which no tabulation or combinations of facts were possible, owing, as already explained, to the manner in which the returns were required to be made. But, beginning with the census of 1850, an individual return was required, that is, the detailed enumeration was made with respect to each living inhabitant, each decedent, each farm, and each establishment of productive industry, etc., and in presenting a summary of the census inquiries, showing their inception and growth from the beginning to the present time, the details called for at the enumerations prior to 1850 have been brought to the basis of the modern idea of census enumeration, as will be more fully explained in connection with the analysis of the inquiries relating to each of the various subjects considered.

Although a material modification and extension of the census inquiries was had at the censuses of 1850, 1860, and 1870, taken under the same general provisions of law, the great, and what is fair to be termed the extraordinary, increase in the scope of the census did not come until 1880 and 1890, when, instead of the census being limited to but five or six schedules, comprising only about 150 details, there were at each of the last two enumerations more than 200 general and special schedules, relating to very many subjects and comprehending several thousand inquiries or details.

At the first nine enumerations, those from 1790 to 1870, inclusive, there were, in all, 26 schedules of inquiry, the number of schedules used at each census, classified according to the subjects to which they related, being shown by the following statement:

SCHEDULES OF INQUIRY: 1790 TO 1870.

Subjects of inquiry.	1790.	1800.	1810.	1820.	1830.	1840.	1850.	1860.	1870.
Population .....	1	1	1	1	1	<sup>a</sup> 1	<sup>b</sup> 2	<sup>b</sup> 2	1
Mortality .....							1	1	1
Agriculture .....							1	1	1
Manufactures .....			1	1					
Mining, commerce, agriculture, manufactures, fisheries, etc. ....						1			
Industry (manufactures, mining, and fisheries) .....							1	1	1
Social statistics (crime; pauperism; valuation, taxation, and indebtedness; schools; libraries; newspapers and periodicals; religion; seasons and crops; wages) .....							1	1	1
Total .....	1	1	2	2	1	2	6	6	5

<sup>a</sup> Including inquiries concerning "Schools."

<sup>b</sup> One schedule for free inhabitants and one for slaves.

By the terms of the acts of March 3, 1879, and of March 1, 1889, which governed, respectively, the work of the censuses of 1880 and

1890, the number of subjects of investigation was greatly increased, and in addition to the five general schedules prescribed by section 2206 of the Revised Statutes of 1878, there were very many special schedules prepared and used at each of these two censuses, as shown by the following summary:

SCHEDULES OF INQUIRY: 1880 AND 1890.

Subjects of inquiry.	1880.	1890.
Population.....	1	1
Mentally and physically defective (a).....	4	8
Crime, pauperism, and benevolence.....	6	4
Mortality.....	1	1
Agriculture.....	36	21
Manufactures (b).....	60	77
Mines and mining.....	42	23
Fish and fisheries.....	5	15
Education.....	14	10
Insurance.....	15	12
Libraries.....	2	.....
Real estate mortgages.....	.....	4
Farms and homes; proprietorship and indebtedness.....	.....	1
Religious organizations.....	5	2
Social statistics of cities.....	11	18
Trade societies and strikes and lockouts.....	4	.....
Transportation.....	7	12
Wages and prices.....	3	.....
Wealth, debt, and taxation.....	5	12
Alaska.....	.....	9
Indians.....	4	6
Surviving soldiers, etc., and inmates of soldiers' homes.....	.....	2
Total.....	215	233

a Includes insanity, feeble-mindedness, deafness, blindness, physical disabilities, etc.

b Includes newspapers and periodicals.

The very large number of schedules used at these two censuses, as compared with the preceding enumerations, was due, of course, to the great increase in the scope of the census, calling for an investigation at the decennial period of very many subjects or special topics which had not previously been touched by the census inquiries or for which very limited data had been secured. Following the more comprehensive plan of census investigation in 1880 and 1890, supplemental and special schedules were used, wherever deemed necessary, by which the inquiries were specialized, but in which there were, as a matter of course, very many inquiries or details that were common to some or all of the schedules relating to each particular subject. In attempting to arrive at, approximately, the number of different inquiries or details asked concerning each subject of inquiry, or the total number for all the subjects combined, every effort was made to conform the work, as far as possible, to a fixed rule or plan, although realizing fully the difficulties arising in such a work, covering so many different subjects, for which the schedules of inquiry have been prepared by very many persons, and in accordance with various ideas or bases. In making the effort to determine, however, for the purposes of this article, the number of different inquiries or details called for concerning each topic of investigation at each of the various censuses from 1790 to 1890,

inclusive, no claim is made that the results are in any sense to be considered definitive. It is difficult to determine what constitutes an inquiry, and the definition which would hold good in one case would be open to serious objection, perhaps, if applied to a somewhat different line of inquiry. Each topic has been considered, therefore, on its own merits, so to speak, and careful effort made to arrive at a fair approximation of the number of inquiries or details in each case, especially with reference to showing the increase in the detail in which the inquiry was made, or, in other words, the number of details called for at each census concerning each particular item or topic considered.

With this general statement, the following summary is presented, showing the various subjects of inquiry and the comparative increase in the number of inquiries or details asked concerning them at each decennial period.

TOTAL NUMBER OF INQUIRIES OR DETAILS RELATING TO EACH SUBJECT: 1790 TO 1890.

Subjects of inquiry.	1790.	1800.	1810.	1820.	1830.	1840.	1850.	1860.	1870.	1880.	1890.
Population .....	4	4	4	6	7	14	a 22	b 24	23	24	45
Insanity:											
Individuals.....										14	34
Institutions.....											54
Feeble-mindedness, etc.....										11	31
Deafness:											
Individuals.....										9	36
Institutions.....											28
Blindness:											
Individuals.....										10	35
Institutions.....											28
Physical disabilities.....											27
Crime:											
Individuals.....							4	4	5	19	32
Institutions.....										139	37
Pauperism.....							5	5	6	24	42
Benevolence.....										13	42
Mortality.....							11	11	11	14	17
Agriculture:											
General schedules.....						37	46	48	52	108	255
Special schedules.....										1,572	837
Manufactures:											
General schedules.....			3	14		5	14	14	18	29	88
Special schedules.....							c 4	c 4	c 4	705	2,779
Mines and mining.....						6	(d)	(d)	(d)	1,619	313
Fish and fisheries.....						5	(d)	(d)	(d)	87	248
Commerce.....						11					
Education.....						4	8	8	10	907	76
Insurance.....										5,779	3,921
Libraries.....							3	3	3	196	
Real estate mortgages.....											26
Farms and homes: proprietorship and indebtedness.....											5
Religious organizations.....							4	4	5	372	13
Seasons and crops.....							3	3			
Social statistics of cities.....										299	222
Trade societies and strikes and lockouts.....										101	
Transportation.....										466	1,464
Wages and prices.....							6	6	6	167	
Wealth, debt, and taxation.....							8	8	13	105	1,970
Alaska.....											123
Indians.....										221	283
Surviving soldiers, etc., and inmates of soldiers' homes.....											50
Total.....	4	4	7	20	7	82	138	142	156	13,010	13,161

a Including 4 inquiries on schedule for slaves, not common to free inhabitants.

b Including 5 inquiries on schedule for slaves, not common to free inhabitants.

c Inquiries relating to newspapers and periodicals.

d Inquiries same as given for manufactures, being applicable to products of industry generally.

The small number of inquiries relating to population at the enumerations from 1790 to 1840, as indicated by this table, is due to the fact, as already stated, that the various details called for by the schedules prescribed by the census acts related to a return, in connection with the name of the head of the family, of the number of persons in each family, classified according to the various specifications of color, sex, and age indicated therein, varying from 5 specifications in 1790 to 50 in 1840, but which, considered with respect to the principle of individual enumeration which has governed the census work since and including 1850, does not in reality represent more than the number of inquiries shown by the table. This point is fully explained in connection with the detailed consideration of the inquiries concerning population, but this brief mention seems necessary here, in order to avoid misapprehension as to the manner in which the table has been compiled.

Considering briefly the total number of inquiries or details asked at each census, as shown by the above table, it is seen that prior to 1840 the inquiries were few in number and were wholly confined to population and manufactures. At the census of 1840 there were 7 subjects of inquiry, comprehending 82 details, and at the census of 1850 there were, under the new law, 15 subjects of inquiry for which 138 details were required. There was no change in the scope of the census inquiries in 1860 and 1870, and the number of details called for at these two censuses was but slightly increased over the number specified on the schedules of 1850. In 1880, however, under the improved methods provided for census enumeration and the opportunities afforded for special investigation, the number of subjects of inquiry was increased to 23 and the approximate number of inquiries or details asked concerning them represented an aggregate of 13,010. The census of 1890 did not comprehend all the subjects of inquiry of its immediate predecessor, but with the subjects that were retained and the new ones for which special provision was made by the law, there was in 1890 practically the same number of subjects of investigation, calling for substantially as many details.

In considering the growth of the inquiries relating to each subject of investigation it will be only possible, on account of space, to analyze in detail the general inquiries relating to the population, including the mentally and physically defective and the subjects of crime, pauperism, and benevolence, and to mortality, agriculture, and manufactures, and to supplement this analysis by a brief statement concerning each of the special subjects of investigation.

**POPULATION.**

Instead of providing simply for an enumeration of the population in 1790 according to the number of "free persons" and the number of "all other persons, excluding Indians not taxed," which would have answered all the requirements of the Constitution, the schedule prescribed by the census act called for a return of the population, in connection with the name of the head of the family, in each case, according to five specifications of age, sex, and condition, thus recognizing at the very outset the desirability of using the census as a means of securing data beyond the mere statement of population needed for apportionment purposes. Following this general principle, the number of specifications relating to the population at each enumeration thereafter up to and including that of 1840 was constantly increased, and at the latter census the schedule prescribed called for a return of the number of persons in each family according to 50 specifications of color, sex, age, and condition, in addition to other particulars with respect to their occupation, illiteracy, mental and physical condition, etc. The manner in which the enumeration was made, following the provisions of the census act by which the details of population to be returned by the marshals and their assistants was fixed and determined, did not admit of any combination of color, sex, and age other than as prescribed by the schedule, and the printed results of these earlier enumerations followed closely the form in which the return was made by the marshals, as required by law. The change at the census of 1850 in the method by which the return was made concerning each person enumerated, calling for an individual statement, in each case, of the color, sex, and age, place of birth, occupation, etc., did away with the necessity of specifying in the census act the detail in which the return of population should be made, for purposes of presentation, and charged the work of classifying and arranging the data secured upon the central office at Washington. In determining, therefore, the number of inquiries or details asked at each census concerning population, it is manifest that the returns made by the marshals at the first six enumerations, which were published in practically the same form as transmitted by them, must be brought to the basis of the individual return required at the censuses since and including 1850. In accordance with this interpretation, the following table is obtained, in which the number of inquiries or details asked concerning population at each census from 1790 to 1840, inclusive, are classified according to the specific items for which a return was required to be made:

# 90 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## NUMBER OF INQUIRIES OR DETAILS RELATING TO POPULATION: 1790 TO 1840.

Items of inquiry.	1790.	1800.	1810.	1820.	1830.	1840.
Name of head of family .....	1	1	1	1	1	1
Color:						
Free white; other free persons; slaves.....	1	1	1			
Free white; free colored; slaves; all other (a) .....				1	1	1
Sex:						
Free white.....	1	1	1			
Free white; free colored; slaves.....				1	1	1
Age:						
Free white males .....	1					
Free white males and females.....		1	1			
Free white; free colored; slaves (in each case by sex) .....				1	1	1
Occupation:						
Agriculture; commerce; manufactures.....				1		
Mining; agriculture; commerce; manufactures and trades; navigation of the ocean; navigation of canals, lakes, and rivers; learned professions and engineers .....						1
Citizenship (foreigners not naturalized).....				1	1	
Illiteracy (white persons over 20 years of age who can not read and write).....						1
Deaf and dumb:						
White persons; (b) slaves and colored persons (b) .....					1	
White persons; (b) colored persons .....						1
Blind:						
White persons; slaves and colored persons .....					1	
White persons; colored persons.....						1
Insane or idiots at public charge:						
White persons; colored persons.....						2
Insane or idiots at private charge:						
White persons; colored persons.....						2
Penitentiaries for Revolutionary or military services: Names; ages.....						2
Total.....	4	4	4	6	7	14

a "All other persons" for 1820 only.

b Also, by three age periods, viz, under 14; 14 to 25; 25 and upward.

In bringing the inquiries prescribed at the first six enumerations to the basis of the individual inquiries made at the later censuses, as previously explained, an attempt has been made in the above table to show at the same time the class or classes of the population at each census for which a return as to color, sex, and age was required to be made. For instance, the above table shows that at the first three censuses the population was subdivided into three classes, namely, free white, other free persons, and slaves, and that at each of these censuses a subdivision by sex was called for concerning free whites, and a further classification by age for free white males in 1790 and for free white males and females in 1800 and 1810. At the next three censuses, those from 1820 to 1840, the population was divided into free white, free colored, and slaves, which were in turn subdivided by sex, and that for each class by sex a further classification of age was required. The detail in which the subdivisions by sex and age were required at each census from 1790 to 1840, and for which the return of population was made and presented in the printed report, is shown for each of the three classes of persons in a second table, as follows:

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 91

## DETAIL OF SEX AND AGE: 1790 TO 1840.

Items of inquiry.	1790.	1800.	1810.	1820.	1830.	1840.
<i>Free white persons.</i>						
Males of 16 years and upward; males under 16 years; females ..	1					
Males and females: Under 10; 10 to 16; 16 to 26; 26 to 45; 45 and upward (a) ..		1	1	1		
Males and females: Under 5; 5 to 10; 10 to 15; 15 to 20; 20 to 30; 30 to 40; 40 to 50; 50 to 60; 60 to 70; 70 to 80; 80 to 90; 90 to 100; 100 and upward.....					1	1
<i>Other free persons.</i>						
All other free persons (no sex or age distinction) ..	1					
All other free persons, except Indians not taxed (no sex or age distinction) ..		1	1			
Free colored males and females: Under 14; 14 to 26; 26 to 45; 45 and upward.....				1		
All other persons except Indians not taxed ..						
Free colored males and females: Under 10; 10 to 24; 24 to 36; 36 to 55; 55 to 100; 100 and upward.....					1	1
<i>Slaves.</i>						
Slaves (no sex or age distinction) ..	1	1	1			
Males and females: Under 14; 14 to 26; 26 to 45; 45 and upward ..				1		
Males and females: Under 10; 10 to 24; 24 to 36; 36 to 55; 55 to 100; 100 and upward.....					1	1

a Also, males between 16 and 18 years for 1820 only.

With respect to the additional information called for at the various censuses, the first table (page 90) shows the classes of occupations for which a return was required in 1820 and 1840; the special inquiries that were made concerning citizenship in 1820 and 1830 and concerning illiteracy and pensioners in 1840, and the classes of the population for which a statement was required at the censuses specified of the number who were deaf and dumb or blind or who were insane or idiots at public and private charge, respectively.

The inquiries relating to population at the first three censuses, therefore, comprehended four items only, namely, name of head of family, color, sex, and age, and at the next three enumerations (1820 to 1840) these four items were not only retained on the population schedules but, in addition, as shown by the above table, inquiries were made as to citizenship, occupation, illiteracy, etc., representing, in all, 6 items of inquiry in 1820, 7 items of inquiry in 1830, and 14 items of inquiry in 1840.

## 92 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

The inquiries relating to population at the censuses from 1850 to 1890, inclusive, in accordance with the plan of individual enumeration in vogue from and after 1850, are summarized as follows:

### NUMBER OF INQUIRIES OR DETAILS RELATING TO POPULATION: 1850 TO 1890.

(In 1850 and 1860 the inquiries related to free inhabitants only.)

Items of inquiry.	1850.	1860.	1870.	1880.	1890.
Dwelling houses:					
Number of dwelling house in the order of visitation.....	1	1	1	1	1
Number of families in dwelling house.....					1
Number of persons in dwelling house.....					1
Families:					
Number of family in the order of visitation.....	1	1	1	1	1
Number of persons in family.....					1
Name of each person.....	1	1	1	1	1
Color:					
White, black, or mulatto.....	1	1			
White, black, mulatto, Chinese, or Indian.....			1	1	
White, black, mulatto, quadroon, octoroon, Chinese, Japanese, or Indian.....					1
Sex.....	1	1	1	1	1
Age:					
Exact or estimated; if under 1 year, in months.....	1	1			
At last birthday; if under 1 year, in months.....			1	1	
At nearest birthday; if under 1 year, in months.....					1
Month of birth, if born within the year.....			1	1	
Relationship to head of family.....				1	1
Conjugal condition.....				1	1
Married within the year (a).....	1	1	1	1	1
Mother of how many children, and number of children living.....					2
Place of birth (State, Territory, or country).....	1	1	1	1	1
Parentage:					
Father of foreign birth; mother of foreign birth.....				2	
Place of birth of father; place of birth of mother.....				2	2
Citizenship:					
Male citizens of United States of 21 years and upward.....				1	
Male citizens of United States of 21 years and upward whose right to vote is denied or abridged on other grounds than rebellion or other crime.....				1	
Number of years in the United States (b).....					1
Whether naturalized (b).....					1
Whether naturalization papers have been taken out (b).....					1
Profession, occupation, or trade:					
Of each male person over 15 years of age.....	1				
Of each person, male or female, over 15 years of age.....		1			
Of each person, male or female, 10 years of age and over.....			1	1	1
Months unemployed during census year.....				1	1
Attended school within the year (c).....	1	1	1	1	1
Illiteracy:					
Persons over 20 years of age who can not read and write.....	1	1			
Can not read; can not write (d).....				2	2
Able to speak English. If not, the language or dialect spoken.....					1
Physical and mental disabilities, etc.:					
Deaf and dumb.....	1	1	1	1	1
Blind.....	1	1	1	1	1
Insane.....	1	1	1	1	1
Idiotic.....	1	1	1	1	1
Maimed, crippled, bedridden, or otherwise disabled.....				1	
Maimed.....					1
Crippled.....					1
Deformed.....					1
Prisoner.....					1
Convict.....	1	1			1
Homeless child.....					1
Pauper.....	1	1			1
Sick or temporarily disabled, etc.....				1	2
Soldier, sailor, or marine (United States or Confederate) in civil war, or widow of such person.....					1
Value of estate owned:					
Value of real estate.....	1	1	1		
Value of personal estate.....		1	1		
Ownership of farm and home, and if encumbered.....					5
Total.....	18	19	23	24	45

a Also, month of marriage for 1870 only.

b For all foreign-born males 21 years of age and over.

c Attendance at school, in months, for 1890 only.

d For all persons 10 years of age and over.

e Not including 4 inquiries on schedule for slaves not common to free inhabitants.

f Not including 5 inquiries on schedule for slaves not common to free inhabitants.

At the census of 1850 there were 18 inquiries or details required concerning population, and this number was not very much increased until the census of 1890 when there were 45 inquiries or details called for on the general population schedule. The various items of inquiry comprehended, and the detail in which the inquiries concerning them was made in each case, are summarized in the preceding table, showing, as far as possible, their nature and extent, and, in certain cases, their limited application at each of the census periods specified, without attempting to adhere strictly to the form in which the inquiry may have been made at each particular census. Under "color," for instance, at the censuses of 1850 and 1860, an inquiry was made, for each person enumerated, according to whether white, black, or mulatto, and this inquiry at the next two censuses was modified to distinguish Chinese and Indians, as well as whites, blacks, and mulattoes, but at the census of 1890 the schedule called for a further distribution of color according to whether black, mulatto, quadroon, octoroon, and, in addition, required a return of the Japanese as a separate element of the general population. Similarly, under "parentage," inquiries were made at the census of 1870 as to whether the father or mother of each person enumerated was of foreign birth, but at the censuses of 1880 and 1890 these inquiries were extended to include the place of birth of the father and mother, in each case, so as to show the number of persons of foreign parentage according to their respective nationalities. Again, the return of the profession, occupation, or trade was limited to free males over 15 years of age in 1850, to free white males and females over 15 years of age in 1860, and to all persons 10 years of age and over in 1870, 1880, and 1890. These three illustrations will suffice to show the general purpose of the table, and a more extended analysis does not seem necessary.

At the censuses of 1850 and 1860 there was a separate schedule provided for the enumeration of the slaves, in which inquiries were made as to their age, sex, color, and whether deaf and dumb, blind, insane, or idiotic, the same as for free inhabitants, to which were added four or five inquiries calling for special information pertaining to slaves. The inquiries relating to the slave inhabitants in 1850 and 1860 are summarized as follows:

SLAVE INHABITANTS: 1850 AND 1860.

Items of inquiry.	1850.	1860.
Names of slave owners .....	1	1
Number of slaves .....	1	1
Age (a) .....	1	1
Sex (a) .....	1	1
Color (a) .....	1	1
Fugitives from the State .....	1	1
Number manumitted .....	1	1
Deaf and dumb, blind, insane, or idiotic (a) .....	4	4
Number of slave houses .....	1	1
Total .....	11	12

a Common to free inhabitants.

The inquiries made on the population schedule used at the several censuses are, in the main, comprehended by the printed reports, but in certain cases no results have been printed, either on account of the insufficiency of the data secured or from the lack of time in which to complete the tabulations. This is notably the case with respect to the returns relating to "conjugal condition" and "months unemployed" at the census of 1880, for which no results were printed, and with respect to "foreign parentage," at the same census, for which partial results only are presented. At the census of 1890 an inquiry was made concerning all women who were or had been married as to the number of children born to them and the number of these children that were living at the time the census was taken, but no tabulation of these data was made, for want of time. The inquiry as to "relationship to head of family," was made in 1880 and 1890, mainly for purpose of more exact identification of each person enumerated, and no tabulation of the data secured was deemed necessary.

#### THE MENTALLY AND PHYSICALLY DEFECTIVE.

Prior to the census of 1880 the only inquiries that were made relative to the mentally and physically defective were contained on the population schedule, and, beginning with 1830, called for a return only of the number of the various classes of persons included under this designation, that is, the insane, feeble-minded, deaf and dumb, and blind. In 1880 and 1890 supplemental schedules were used, comprehending special inquiries as to the form of the mental or physical defect, its cause and duration, the number of relatives similarly afflicted, time spent in special institutions or schools, nature of support, etc., as shown by the following summary:

SUPPLEMENTAL INQUIRIES—INSANE: 1880 AND 1890.

Items of inquiry.	1880.	1890.
Form of insanity.....	1	1
Age at first attack, number of attacks, and duration of present attack.....	3	3
Supposed cause of insanity.....	1	1
Whether also epileptic, suicidal, or homicidal.....	3	3
Restraint and seclusion.....	2	.....
Relatives insane or feeble-minded.....	.....	12
Relatives blind, deaf, or deformed.....	.....	10
Length of time in institutions for the insane.....	3	2
Nature of support.....	1	1
Residence when at home.....	1	1
Total.....	a 14	b 34

SUPPLEMENTAL INQUIRIES—FEEBLE-MINDED, ETC.: 1880 AND 1890.

Age at which mental defect occurred, and supposed cause.....	2	2
Instruction and length of time in schools for the feeble-minded, etc.....	3	5
Paralysis of one or both sides.....	2	2
Whether epileptic.....	1	.....
Size of head.....	1	.....
Relatives insane or feeble-minded.....	.....	10
Relatives blind or deaf.....	.....	10
Nature of support.....	1	1
Residence when at home.....	1	1
Total.....	c 11	d 31

## SUPPLEMENTAL INQUIRIES—DEAF: 1880 AND 1890.

Items of inquiry.	1880.	1890.
Age at which deafness occurred.....	1	1
Supposed cause and extent of deafness.....	3	3
Instruction and length of time in schools for the deaf.....	3	2
Means of communication with hearing persons.....		1
Relatives deaf.....		17
Relatives blind, feeble-minded, or insane.....		10
Nature of support.....	1	1
Residence when at home.....	1	1
Total.....	c 9	b 36

## SUPPLEMENTAL INQUIRIES—BLIND: 1880 AND 1890.

Condition of eyes and grade of blindness.....	3	6
Age at which blindness occurred.....	1	2
Cause of blindness.....	1	2
Length of time in schools for the blind.....	3	1
Marriage before or after blindness, if married.....		1
Relatives blind.....		12
Relatives deaf, insane, or feeble-minded.....		9
Nature of support.....	1	1
Residence when at home.....	1	1
Total.....	c 10	b 35

## SUPPLEMENTAL INQUIRIES—DISEASED OR PHYSICALLY DEFECTIVE: 1890.

Items of inquiry.	1890.
Defective in speech.....	4
Crippled and lame.....	8
Maimed.....	5
Deformed.....	4
Paralyzed.....	4
Nature of support.....	1
Residence when at home.....	1
Total.....	c 27

a Not including 3 inquiries as to name and identification on population schedule.

b Not including 27 inquiries or details duplicated from general population schedule.

c Not including 3 inquiries as to name and identification on population schedule and 3 inquiries, duplicated from general population schedule, as to other mental and physical defects.

d Not including 26 inquiries or details duplicated from general population schedule.

e Not including 22 inquiries or details duplicated from general population schedule.

In addition to the inquiries which were made on the supplemental schedules relating to the insane and feeble-minded in 1880, and which were required to be filled by the census enumerators, a special return concerning these two classes was requested from practicing physicians throughout the country, covering, in the main, inquiries common to the general population and supplemental schedules but including special inquiries relative to one or two features not comprehended by the supplemental schedule used by the census enumerators. For the insane, the physician's return called for one additional inquiry only, relating to the number of insane relatives on the father's and mother's side, respectively, while for the feeble-minded a similar statement concerning relatives who were feeble-minded was requested, and, in addition, inquiries as to articulation and the use of the hands and feet; the number of cases reported upon by physicians being given, in each case, in the printed report.

At the census of 1890 special schedules were sent to institutions for the insane, to schools for the deaf, and to schools for the blind, calling for a statement, comprehending 54 details, in the case of institutions for the insane, of the number of patients (by sex) admitted, discharged, transferred, died, and remaining, by years from 1881 to 1889, inclusive, and of the expenditures for the same years; and for schools for the deaf and blind, respectively, a statement comprehending 28 details, in each case, of the number of pupils (by sex) under instruction, by decades from 1840 to 1880 and by single years from 1880 to 1889, and of the expenditures for the same periods and years.

Supplemental inquiries were made at the census of 1890 concerning the diseased or physically defective, that is, those suffering from an acute or chronic disease and those that were crippled, maimed, or deformed, but the returns concerning this class of persons were so deficient that the results were not fully compiled and do not appear in the printed report.

#### CRIME, PAUPERISM, AND BENEVOLENCE.

A return of the number of paupers and criminals was called for on the general population schedules at the censuses of 1850 and 1860, and, in addition, four or five special inquiries concerning each of these two classes were made on the schedule for social statistics. These special inquiries were also made at the census of 1870, but the general population schedule contained no inquiry as to the number of such persons, as was the case at the two preceding censuses. The special inquiries relating to crime and pauperism at the censuses of 1850, 1860, and 1870 are summarized as follows:

##### SPECIAL INQUIRIES—CRIME: 1850 to 1870.

Items of inquiry.	1850.	1860.	1870.
Number of criminals convicted within the year (native; foreign) .....	2	2	2
Number in prison 1st of June:			
Native; foreign .....	2	2	3
Native white; native black; foreign .....			
Total .....	4	4	5

##### SPECIAL INQUIRIES—PAUPERISM: 1850 to 1870.

Number of paupers supported within the year (native; foreign) .....	2	2	2
Number on 1st of June:			
Native; foreign .....	2	2	3
Native white; native black; foreign .....			1
Annual cost of support .....	1	1	
Total .....	5	5	6

At the censuses of 1880 and 1890 supplemental schedules were used by the census enumerators to make the return of the special information called for concerning paupers and criminals, and also with respect

to the inmates of benevolent institutions. The supplemental inquiries relating to each of these three classes are summarized in the following statement:

## SUPPLEMENTAL INQUIRIES—CRIME: 1880 AND 1890.

Items of inquiry.	1880.	1890.
Court of arraignment, and whether a Federal prisoner.....		2
Place of imprisonment, and whether national, State, or city prisoner.....	2	
Date of incarceration and offense charged.....	2	2
Age when committed.....		1
Nature of sentence.....	3	8
Previous record and use of stimulants, etc.....		4
Special higher education and mechanical training.....		3
Employment at time of arrest.....		1
Employment in prison.....	3	2
Why imprisoned.....	8	8
Residence when at home.....	1	1
Total.....	a 19	b 32

## SUPPLEMENTAL INQUIRIES—PAUPERISM: 1880 AND 1890.

Date of admission to institution.....	1	1
Whether able-bodied.....	1	1
Cause of admission or retention.....	8	14
Special inquiries relating to children only.....	1	10
Relatives now inmates of institution.....	8	9
Nature of support and weekly charge for board.....	4	6
Residence when at home.....	1	1
Total.....	c 24	b 42

## SUPPLEMENTAL INQUIRIES—BENEVOLENCE: 1880 AND 1890.

Date of admission to institution and whether able-bodied.....		2
Cause of admission or retention.....		14
Special inquiries relating to children only.....	8	10
Antecedents of inmates.....	4	
Relatives now inmates of institution.....		9
Nature of support and weekly charge for board.....		6
Residence when at home.....	1	1
Total.....	d 13	b 42

- a Not including 3 inquiries as to name and identification on population schedule.  
b Not including 27 inquiries or details duplicated from general population schedule.  
c Not including 3 inquiries as to name and identification on population schedule, and 4 inquiries, duplicated from general population schedule, as to mental and physical defects.  
d Not including 3 inquiries as to name and identification on population schedule, and 3 inquiries, duplicated from general population schedule, as to mental and physical defects.

In addition to the inquiries made on the supplemental schedule relating to crime at the census of 1880, various other sources of information were utilized, in order to secure as complete data as possible concerning the criminal element of the population. For this purpose special blanks were used, comprehending, in all, 139 items or details, as follows:

Abstract of criminal docket, including all terms ending on any day between June 1, 1879, and June 1, 1880, 36 details.

Justices' return of all criminal cases on docket from June 1, 1879, to June 1, 1880, 19 details.

Police departments, comprehending every form of police work, and including inquiries as to organization of police force or department,

work done by the police in preventing crime and bringing offenders to justice, etc., 84 details.

At the census of 1890 a special schedule relating to "police and police stations or lock-ups" was used, embodying 37 inquiries or details similar to those contained in the special schedule for police departments used at the census of 1880.

### MORTALITY.

Until the passage of the new law in 1850, calling for the individual enumeration of the population, no attempt was made to secure mortality statistics of any kind. At the census of 1850 a separate schedule was provided, calling for detailed information concerning each person who died during the twelve months preceding the census day (June 1), and comprehending in all 11 inquiries. The detail required at the succeeding censuses was not greatly changed, but one or two features were added and the number of inquiries slightly increased, as shown by the following summary :

NUMBER OF INQUIRIES OR DETAILS RELATING TO MORTALITY: 1850 TO 1890.

Items of inquiry.	1850.	1860.	1870.	1880.	1890.
Name of person deceased.....	1	1	1	1	1
Color:					
White, black, or mulatto.....	1	1			
White, black, mulatto, Chinese, or Indian.....			1	1	
White, black, or mixed blood; also whether Chinese, Japanese, or Indian.....					1
Sex.....	1	1	1	1	1
Age:					
Exact or estimated: if under 1 year, in months.....	1	1			
At last birthday; if under 1 year, in months.....			1	1	
Years, months, and days.....					1
Free or slave.....	1	1			
Conjugal condition:					
Married or widowed.....	1	1	1		
Single, married, widowed, or divorced.....				1	1
Place of birth (State, Territory, or country).....	1	1	1	1	1
Parentage:					
Father of foreign birth; mother of foreign birth.....			2		
Place of birth of father; place of birth of mother.....				2	2
Profession, occupation, or trade.....	1	1	1	1	1
Month of birth, if born in census year.....					1
Month in which the person died.....	1	1	1	1	1
Disease or cause of death.....	1	1	1	1	1
Number of days ill.....	1	1			
Length of time a resident of county.....				1	1
Name of place where disease was contracted, if other than place of death.....				1	1
Name of attending physician.....				1	1
Whether insane or idiot.....					1
Soldier, sailor, or marine (United States or Confederate) in civil war, or widow of such person.....					1
Total.....	11	11	11	14	17

<sup>a</sup> Not including inquiry as to "Number of family," for purposes of identification.

<sup>b</sup> Not including inquiry as to "Number of ward or sanitary district."

Under the laws governing the censuses of 1880 and 1890, the mortality schedule was withdrawn in registration areas and the data secured from the records of the several registration offices. In the non-registration States and localities the returns of the census enumerators were supplemented, as far as possible, by a voluntary return made by

physicians, at the request of the Superintendent of Census, upon blanks provided for the purpose, and by this means many thousands of deaths were added to the enumerators' returns. The inquiries called for by the physicians' return of deaths were practically the same as contained in the regular mortality schedule, and, being entirely supplementary thereto, have not been considered as being in any sense additional inquiries.

### AGRICULTURE.

No attempt was made to secure agricultural statistics through the medium of the census until 1840, when 37 details or specifications were called for concerning the products of agriculture and of the forests and the number of farm animals of the various kinds. There was no very material increase in the number of details required at subsequent censuses until 1880, when the general schedule relating to the productions of agriculture contained 108 specifications, and this number was greatly increased in 1890, when there were 255 specifications included in the general agricultural schedule.

The details or specifications called for at each census from 1840 to 1890, inclusive, are summarized as follows:

NUMBER OF INQUIRIES OR DETAILS RELATING TO AGRICULTURE: 1840 TO 1890.

Items of inquiry.	1840.	1850.	1860.	1870.	1880.	1890.
Name of person conducting farm.....		1	1	1	1	1
Color of person conducting farm.....						1
Tenure (owner; rents for fixed money rental; rents for share of products).....					3	3
Acres of land:						
Improved.....		1	1	1	a2	b2
Unimproved.....		1	1	2	c2	c2
Total number of acres in farm.....						1
Acres irrigated.....						1
Number of artesian wells flowing.....						1
Farm values (farm (d); farming implements and machinery; live stock).....		3	3	3	3	3
Cost of building and repairing fences.....					1	1
Cost of fertilizers purchased.....					1	1
Wages paid for farm labor, including value of board.....				1	1	1
Weeks of hired labor upon farm (and dairy), excluding house-work (e).....					2	2
Estimated value of all farm productions (f).....				1	1	1
Forest products.....	7			1	2	2
Grass lands and forage crops.....	1	3	3	3	5	22
Sugar.....	1	3	3	3	8	17
Castor beans.....						1
Cereals:						
Barley.....	1	1	1	1	2	4
Buckwheat.....	1	1	1	1	2	4
Indian corn.....	1	1	1	1	2	4
Oats.....	1	1	1	1	2	4
Rye.....	1	1	1	1	2	4
Wheat.....	1	1	1	2	2	4
Corn or other cereals used for fuel or feed.....						3

a Improved land subdivided in 1880 as "Tilled, including fallow and grass in rotation (whether pasture or meadow)," and "Permanent meadows, permanent pastures, orchards, and vineyards."

b Improved land subdivided in 1890 as "Tilled, including fallow and grass in rotation (whether pasture or meadow)," and "Permanent meadows or pastures, cultivated forest, orchards, vineyards, nurseries, and market gardens."

c Unimproved land subdivided in 1880 and 1890 as "Woodland and forest" and "Other unimproved, including 'old fields' not growing wood."

d Cash value of farm, in 1850, 1860, and 1870; value of farm, including land, fences, and buildings in 1880 and 1890.

e For white and colored persons separately.

f Including betterments and additions to stock, in 1870; productions sold, consumed, or on hand, in 1880 and 1890.

## 100 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

NUMBER OF INQUIRIES OR DETAILS RELATING TO AGRICULTURE: 1840 TO 1890—Cont'd.

Items of inquiry.	1840.	1850.	1860.	1870.	1880.	1890.
Rice.....	1	1	1	1	2	3
Tobacco.....	1	1	1	1	2	4
Pease and beans.....		1	1	1	2	4
Peanuts.....						3
Hops.....	1	1	1	1	2	4
Fiber:						
Cotton.....	1	1	1	1	2	5
Flax.....		2	2	2	4	5
Hemp.....	1	2	3	1	2	4
Broom corn.....					2	3
Horses, mules, and asses.....	1	2	2	2	2	10
Sheep.....	1	1	1	1	8	9
Wool.....	1	1	1	1	2	2
Goats.....						2
Dogs.....						1
Neat cattle and their products.....	1	3	3	3	8	10
Dairy products.....	1	2	2	3	3	11
Swine.....	1	1	1	1	1	4
Poultry and eggs.....	1				3	8
Beeswax and honey.....	1	1	2	2	2	4
Nurseries.....	3				2	2
Onions.....						4
Potatoes.....	1	2	2	2	4	6
Market gardens and small fruits.....	1	1	1	1	1	7
Vegetables and fruits for canning.....						10
Orchards.....	1	1	1	1	7	33
Vineyards.....	1	1	1	1	3	7
Silk cocoons.....	1	1	1	1		
Animals slaughtered, etc.....	1	1	1	1		
Home manufactures.....	1	1	1	1		
Total.....	37	46	48	52	α108	α255

α Number of inquiries or details called for by general schedule of agriculture only; additional inquiries on special schedules of agriculture, not common to general schedule or other special schedules, are not included.

In the above summary, the first ten items of inquiry are given in sufficient detail to show the nature and extent of the detailed specifications required concerning each of them at each of the specified censuses, but beginning with "forest products," only the total number of details called for at each census is given, so as to show concisely the increase in the number of specifications required at each census for each product or kind of live stock, respectively.

This general summary is supplemented by two detailed summaries, one relating to products and one relating to live stock, in which the general tenor of the various items of inquiry relating to each product or kind of live stock is reproduced at length, as follows:

## AGRICULTURE—PRODUCTS: 1840 TO 1890.

Items of inquiry.	1840.	1850.	1860.	1870.	1880.	1890.
Forest products:						
Lumber produced (value).....	1					
Tar, pitch, turpentine, and rosin (barrels).....	1					
Pot and pearl ashes (tons).....	1					
Skins and furs produced (value).....	1					
Ginseng, and all other productions of the forest (value).....	1					
Number of men employed.....	1					
Wood sold (cords).....	1					
Wood cut (cords).....					1	1
Forest products (value).....				1		
Forest products sold or consumed (value).....					1	1
Grass lands and forage crops:						
Hay produced (tons).....	1	1	1	1	1	
Wild, salt, or prairie grass harvested (acres; tons).....						2
English and other tame and cultivated grasses harvested (acres; tons).....						2

## AGRICULTURE—PRODUCTS: 1840 TO 1890—Continued.

Items of inquiry.	1840.	1850.	1860.	1870.	1880.	1890.
Grass lands and forage crops—Continued.						
Millet harvested (acres; tons) .....						2
Alfalfa harvested (acres; tons) .....						2
Other clovers harvested (acres; tons) .....						2
Other forage crops harvested (acres; tons) .....						2
Hay of all kinds sold (tons; value) .....						2
Clover seed produced (bushels) .....		1	1	1	1	1
Grass seeds produced (bushels) .....		1	1	1	1	1
Grass and clover seed sold (value) .....						1
Straw of all kinds sold (tons; value) .....						2
Grass lands mown (acres) .....					1	1
Grass lands not mown (acres) .....					1	1
Silos (number; total capacity in tons) .....						2
Sugar:						
Sugar made (pounds) .....	1					
Molasses produced (gallons) .....		1	1	1		
Cane—						
Area in crop (acres) .....					1	1
Sugar produced (hogsheads (a)) .....		1	1	1	1	1
(value) .....						1
Molasses produced (gallons) .....					1	1
(value) .....						1
Sorghum—						
Area in crop (acres) .....					1	1
Sugar produced (pounds) .....					1	1
Sorghum cane raised and sold for sugar making (tons; value) .....						2
Molasses produced (gallons) .....					1	1
(value) .....						1
Maple—						
Sugar produced (pounds) .....		1	1	1	1	1
(value) .....						1
Molasses produced (gallons) .....					1	1
(value) .....						1
Beet—						
Area in sugar beets (acres) .....						1
Beets raised and sold for sugar making (tons; value) .....						2
Castor beans (acres) .....						1
Cereals:						
Barley—						
Area (acres) .....					1	1
Crop (bushels) .....	1	1	1	1	1	1
Sold (bushels; value) .....						2
Buckwheat—						
Area (acres) .....					1	1
Crop (bushels) .....	1	1	1	1	1	1
Sold (bushels; value) .....						2
Indian corn—						
Area (acres) .....					1	1
Crop (bushels) .....	1	1	1	1	1	1
Sold (bushels; value) .....						2
Oats—						
Area (acres) .....					1	1
Crop (bushels) .....	1	1	1	1	1	1
Sold (bushels; value) .....						2
Rye—						
Area (acres) .....					1	1
Crop (bushels) .....	1	1	1	1	1	1
Sold (bushels; value) .....						2
Wheat—						
Area (acres) .....					1	1
Crop (bushels) .....	1	1	1	b2	1	1
Sold (bushels; value) .....						2
Corn used for fuel or feed (bushels) .....						2
Other cereals consumed or "fed" on farm (bushels) .....						1
Rice:						
Area (acres) .....					1	1
Crops (pounds) .....	1	1	1	1	1	1
(value) .....						1
Tobacco:						
Area (acres) .....					1	1
Crop (pounds) .....	1	1	1	1	1	1
Sold (pounds; value) .....						2
Pease and beans:						
Pease and beans (bushels) .....		1	1	1		1
Canada pease, dry (bushels) .....					1	1
Cowpease (bushels) .....						1
Beans, dry (bushels) .....					1	1
Pease and beans sold (value) .....						1
Peanuts:						
Area (acres); crop (bushels; value) .....						3

a Hogsheads of 1,000 pounds in 1850, 1860, and 1870; not specified in 1880 and 1890.

b Spring and winter wheat.

## 102 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## AGRICULTURE—PRODUCTS: 1840 TO 1890—Continued.

Items of inquiry.	1840.	1850.	1860.	1870.	1880.	1890.
<b>Hops:</b>						
Area (acres) .....					1	1
Crop (pounds) .....	1	1	1	1	1	1
Sold (pounds; value) .....						2
<b>Fiber:</b>						
<b>Cotton—</b>						
Area (acres) .....					1	1
Crop (pounds) .....	1					
(bales) (a) .....		1	1	1	1	1
(value) .....						1
Cotton seed sold (bushels; value) .....						2
<b>Flax:</b>						
Area (acres) .....					1	1
Seed (bushels) .....		1	1	1	1	1
Straw (tons) .....					1	1
Fiber (pounds) .....		1	1	1	1	1
Flax products sold (value) .....						1
<b>Hemp:</b>						
Area (acres) .....					1	1
Crop (tons) .....		b2	b3	1	1	1
Sold (tons; value) .....						2
Hemp and flax (tons) .....	1					
<b>Broom corn:</b>						
Area (acres) .....					1	1
Crop (pounds) .....					1	1
(value) .....						1
<b>Wool:</b>						
Wool (pounds) .....	1	1	1	1		
Clip, spring 1880, shorn and to be shorn (fleeces; pounds) .....					2	
Shorn spring of 1890 and fall of 1889 (fleeces; pounds) .....						2
<b>Dairy products:</b>						
Products of the dairy (value) .....	1					
Butter made on farm (pounds) .....		1	1	1	1	1
Butter sold (pounds) .....						1
Cheese made on farm (pounds) .....		1	1	1	1	1
Cheese sold (pounds) .....						1
Milk sold (gallons) .....				1		
Milk sold, or sent to butter or cheese factories (gallons) .....					1	
Milk produced on farm; sold for consumption in families; sent to creamery or factory; used on farm, including for butter and cheese; used on farm in raising cream for sale, including for creamery or factory (gallons) .....						5
Cream sent to creamery or factory; sold other than to creamery or factory (quarts) .....						2
<b>Beeswax and honey:</b>						
Beeswax (pounds) .....	1				1	1
Honey (pounds) .....		1	1	1	1	1
Beeswax and honey sold (value) .....						1
Stands of bees June 1, 1889 .....						1
<b>Nurseries:</b>						
Produce of nurseries and florists (value) .....	1					
Number of men employed; capital invested .....	2					
Acres; products sold (value) .....					2	2
<b>Onions:</b>						
Crop (acres; bushels produced) .....						2
Sold (bushels; value) .....						2
<b>Potatoes:</b>						
Potatoes (bushels) .....	1					
<b>Irish—</b>						
Area (acres) .....					1	1
Crop (bushels) .....		1	1	1	1	1
Sold (bushels) .....						1
<b>Sweet—</b>						
Area (acres) .....					1	1
Crop (bushels) .....		1	1	1	1	1
Sold (bushels) .....						1
<b>Market gardens and small fruits:</b>						
Produce of market gardens (value) .....	1	1	1	1	1	1
All vegetables except onions and potatoes; blackberries; cranberries; raspberries; strawberries; other small fruits (acres) .....						6
<b>Vegetables and fruits for canning:</b>						
Beans and pease; green corn; tomatoes; other vegetables; fruits (acres; crop—bushels) .....						10
<b>Orchards:</b>						
Orchard products (value) .....	1	1	1	1	c1	1
<b>Apples—</b>						
Acres; crop (bushels); bearing trees .....					3	3
Sold (bushels); young trees not bearing .....						2

a Bales of 400 pounds, in 1850 and 1860; bales of 450 pounds, in 1870; not specified, in 1880 and 1890.

b Dew and water rotted, in 1850; dew and water rotted, and other prepared hemp, in 1860.

c Orchard products of all kinds sold or consumed.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 103

## AGRICULTURE—PRODUCTS: 1840 TO 1890—Continued.

Items of inquiry.	1840.	1850.	1860.	1870.	1880.	1890.
Orchards—Continued.						
Apricots:						
Acres; crop (bushels); sold (bushels); bearing trees;						
young trees not bearing.....						5
Cherries:						
Acres; crop (bushels); sold (bushels); bearing trees;						
young trees not bearing.....						5
Peaches:						
Acres; crop (bushels); bearing trees.....					3	3
Sold (bushels); young trees not bearing.....						2
Pears:						
Acres; crop (bushels); bearing trees; young trees not						
bearing.....						4
Plums and prunes:						
Acres; crop (bushels); bearing trees; young trees not						
bearing.....						4
Other orchard fruits:						
Acres; crop (bushels); bearing trees; young trees not						
bearing.....						4
Vineyards:						
Wine made (gallons).....	1	1	1	1	1	
Acres; grapes sold (pounds).....					2	
Acres in vines (bearing; young vines not bearing); total						
grapeproduct (pounds); grapes sold for table use (pounds);						
grapes made into wine or sold for wine making (pounds);						
raisins made (pounds); total value of products.....						7
Silk cocoons (pounds).....	1	1	1	1		
Home manufactures (value).....	1	1	1	1		

## AGRICULTURE—LIVE STOCK: 1840 TO 1890.

Horses, mules, and asses:						
Horses and mules (on hand) (a).....	1					
Horses; mules and asses (on hand) (a).....		2	2	2	2	
Horses; mules; asses (on hand) (a).....						3
(foaled; sold).....						6
Horses, mules, and asses (died).....						1
Sheep:						
Sheep (on hand) (a).....	1	1	1	1	1	
Merino, "fine" wool (one-half to full blood); English breeds,						
"long" or medium (one-half to full blood); all other (on						
hand) (a).....						3
Lambs dropped.....					1	1
Sheep and lambs purchased; sold living; slaughtered; killed						
by dogs; died of disease; died of stress of weather.....					6	
"Spring lambs" sold for consumption; sold, other than						
"spring lambs;" slaughtered for use on farm; killed by						
dogs; died from disease or stress of weather.....						5
Neat cattle and their products:						
Neat cattle (on hand) (a).....	1					
Milch cows; working oxen; other cattle (on hand) (a).....		3	3	3	3	3
Calves dropped.....					1	1
Cattle of all ages: Purchased; sold living; slaughtered; died,						
strayed and stolen and not recovered.....					4	
Sold living and slaughtered, slaughtered for consumption						
on farm; died.....						3
Quality: Pure bred (recorded); grade (one-half blood or						
higher); common or native (including grades less than						
half-blood).....						3
Swine:						
Swine (on hand) (a).....	1	1	1	1	1	1
(sold, consumed on farm; died).....						3
Animals slaughtered, etc. (value).....		1	1	b 1		
Goats (Angora and grades above half-blood; common and						
grades below half-blood).....						2
Dogs (on farm).....						1
Poultry:						
Poultry of all kinds (estimated value).....	1					
Poultry on hand, exclusive of spring hatching (barnyard;						
other).....					2	
Poultry on hand (chickens; turkeys; geese; ducks).....						4
Poultry sold (value).....						1
Eggs produced (dozen).....					1	1
Eggs sold (dozen; value).....						2

a Number on hand on June 1 of each census year.

b Animals slaughtered or sold for slaughter in 1870.

One or two illustrations will suffice to explain the purpose of these summaries. For instance, under "sugar," there was but one inquiry at the census of 1840, which called for the number of pounds of sugar made, but at the censuses of 1850, 1860, and 1870 a return was required as to the number of gallons of molasses produced, the number of hogsheads of cane sugar produced, and the number of pounds of maple sugar produced, or 3 specifications in all. At the census of 1880 there were 8 specifications under this head, 3 relating to cane sugar, 3 to sorghum sugar, and 2 to maple sugar, but at the census of 1890 the number of specifications under this head was increased to 17, 5 relating to cane sugar, 5 to sorghum sugar, 4 to maple sugar, and 3 to beet sugar, as shown in detail in the preceding summary. Similarly, under "horses, mules, and asses," it is seen that at the census of 1840 there was an inquiry as to the number of horses and mules on hand; that at the next four censuses 2 inquiries were made, 1 as to the number of horses and 1 as to the number of mules and asses on hand; and that at the census of 1890 inquiry was made as to the number, respectively, of horses, mules, and asses on hand, and, in addition, the number of each class foaled, the number of each class sold, and for the three classes combined the number that died during the year.

The foregoing summaries relate to the details or specifications called for in the general schedule of agriculture, but do not apply to the special subjects of investigation which were intrusted to experts and special agents in 1880 and 1890, and for which special schedules were prepared and used. The special subjects of investigation at these two censuses, and the number of schedules or circulars of inquiry used in each case, may be briefly summarized:

*Census of 1880.*—Production of cereals, 1 schedule; cotton culture, 3 schedules; forest products, etc., 15 schedules; fruit growing, etc., 4 schedules; hops, 1 schedule; meat production, 8 schedules; sheep husbandry and wool growing, 1 schedule; tobacco culture, 2 schedules.

*Census of 1890.*—Agricultural organizations, 1 schedule; florists, 1 schedule; irrigation, 4 schedules; live stock not on farms, 1 schedule; live stock on ranges, 1 schedule; nurseries, 1 schedule; seed farms, 1 schedule; tobacco, 1 schedule; tropic and semitropic fruits and nuts, 1 schedule; truck farms, 1 schedule; viticulture, 7 schedules.

The following summary shows the total number of inquiries or details called for by each of these special schedules and, in each case, the number of inquiries not common to the general or other special schedules:

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 105

## NUMBER OF INQUIRIES OR DETAILS ON SPECIAL SCHEDULES OF AGRICULTURE: 1880 AND 1890.

1880.

Name, etc., of special schedule.	Number of inquiries or details.	
	Total.	Number not common to general or other special schedules.
Cereals, production of.....	189	189
Cotton culture, etc.:		
Details of cotton culture.....	206	206
Cost of labor and material expended in the cultivation of an acre of cotton.....	60	60
Cotton-seed oil industry.....	23	23
Forest products, etc.:		
Amount of white pine still standing.....	4	4
Cooperage stock.....	13	13
Cooperage done by flour and grist mills.....	8	8
Destruction of forests by fires.....	7	7
Forest lands on Indian and military reservations.....	20	20
Fuel (wood) consumed annually for domestic purposes.....	2	2
Fuel consumed during year ending May 31, 1880.....	13	13
Fuel used for household purposes.....	2	2
Gunpowder, kinds of wood used in making.....	12	4
Oak bark and sumac ground for tanning and dyeing purposes, kinds of.....	12	4
Uncultivated native nuts, return of.....	8	8
Veneering manufactured from native woods.....	8	
Wheels and wheel stock, kinds of woods used in making.....	21	8
Woodlands.....	24	24
Wood pulp, excelsior, shoe pegs, baskets, etc., matches, oars, and handles for agricultural implements, kinds of wood used in making.....	17	17
Fruit growing, etc.:		
Fruit growing and orchards.....	134	134
Fruit trade of cities.....	24	24
Tropical fruits.....	6	6
Tropical fruit trees.....	21	21
Hops, culture and kiln-drying of.....	92	92
Meat production:		
Cattle feeding.....	62	62
Cattle raising.....	122	122
County clerk's return of herds.....	19	19
Effect of winter of 1880-81 on cattle and sheep.....	5	5
Hog raising.....	22	22
Pastures and ranges for cattle and sheep.....	13	13
Railroad transportation of live meat stock.....	45	45
Statement relating to herds.....	8	8
Sheep husbandry and woolgrowing.....	186	186
Tobacco culture:		
Culture and curing of tobacco.....	85	85
Supplemental tobacco schedule.....	132	132
Total number of different inquiries or details.....		1,572

1890.

Agricultural organizations.....	7	7
Florists.....	35	19
Irrigation:		
Schedule A.—Location of irrigated areas; the water supply, its cost and use; artesian wells, etc.....	73	73
Schedule B.—Irrigation canals and ditches.....	50	41
Schedule C.—Supplemental inquiry: General.....	4	4
Schedule D.—Supplemental inquiry: Artesian wells.....	7	1
Live stock not on farms.....	21	
Live stock on ranges.....	19	11
Nurseries.....	121	121
Seed farms.....	43	25
Tobacco.....	73	73
Tropic and semitropic fruits and nuts.....	67	67
Truck farms.....	28	20
Viticulture:		
Schedule A.—Area planted and production of vineyards.....	13	13
Schedule B.—Values of vineyard property and products, profits on investments, etc.....	15	15
Schedule C.—Distribution and cost of labor in vineyard operations.....	10	9
Schedule D.—Distribution of varieties, susceptibility to disease, bearing qualities, etc.....	7	7
Schedule E.—Shipment of vineyard products.....	110	110
Schedule F.—Capacity and output of wineries.....	209	209
Schedule G.—Soils, irrigation, drainage, meteorology, fertilizers, etc.....	12	12
Total number of different inquiries or details.....		837

The use of this summary is briefly explained. At the census of 1880 the special schedule relating to the production of cereals contained in all 189 inquiries or details, of which none was common to the general or other special schedules of agriculture used at that census. There were, at the same census, 12 inquiries or details specified in the special schedule relating to forest products which called for a return concerning the kinds of wood used in making gunpowder, but of these 12 inquiries or details only 4 were not common to other special schedules. In this way, inquiries on each special schedule which were found to be common to the general or other special schedules have been eliminated, and on this basis there were 1,572 different inquiries or details on the special schedules of agriculture in 1880 and 837 in 1890, as shown by the preceding summary. No inquiry or detail was considered to be common to the general or other special schedule unless it was practically the same in form or called for essentially the same answer.

#### **MANUFACTURES.**

The first attempt to secure industrial statistics was made at the census of 1810, and the only information available concerning the nature of the inquiries made at that census is contained in the printed report, as no copy of the schedule used in collecting the data has been preserved, as far as can be ascertained. The inquiries at that census, as shown by the printed digest made by Tench Coxe in 1813, were confined apparently to the kind, quantity, and value of goods manufactured, or 3 details in all. At the census of 1820, 14 details were called for, a separate schedule or list being provided for each establishment. In 1830 no industrial schedule was provided by the law, but at the census of 1840, 5 items were asked concerning manufactures in connection with a printed list of manufactured articles contained in the "Schedule of Mines, Agriculture, Commerce, Manufactures, etc.," the results concerning each branch of industry evidently being summarized by the assistant marshal for the district canvassed by him. At the censuses of 1850, 1860, and 1870 a schedule relating to products of industry was used, comprehending all products of industry except agriculture (provided for on a separate schedule), and including, in addition to manufactures, the products of mines and the fisheries. In 1880 and 1890 a general schedule of manufactures was used, and, in addition, very many special schedules calling for much greater detail as to materials used and goods manufactured, and also the kind, quantity, size, and capacity of machinery used in each of the more important industries of the country.

Limiting the analysis of the inquiries concerning manufactures in 1880 and 1890 to those made on the general schedule, a detailed summary of the inquiries relating to manufactures at the censuses of 1810

and 1820, and for each census from 1840 to 1890, inclusive, is presented as follows:

## NUMBER OF INQUIRIES OR DETAILS RELATING TO MANUFACTURES: 1810 TO 1890.

Items of inquiry.	1810.	1820.	1840.	1850.	1860.	1870.	1880.	1890.
Name of corporation, company, (a) or individual .....				1	1	1	1	1
Date of establishment.....								1
Kind of goods manufactured .....				1	1	1	1	1
Capital invested:								
Total amount of capital invested .....		1	1	1	1	1	1	
Value of plant—land; buildings; machinery, tools, and implements; total.....								4
Live capital—raw materials on hand; stock in process, and finished products on hand; cash on hand, bills receivable, unsettled ledger accounts, and sundries not included in any of the foregoing items; total.....								4
Average annual allowance since June 1, 1880, for depreciation of buildings and machinery .....								1
Miscellaneous expenses:								
Amount of contingent expenses.....		1						
Amount paid for—rent, power, and heat; taxes; insurance; repairs, ordinary, of buildings and machinery; commissions and expenses of sales department; interest on cash used in the business; all sundries (not reported in any of the foregoing items); total .....								8
Persons employed:								
Number of—men; women; boys and girls.....		3						
Number of—men (or persons) (b).....			1					
Average number of—males; females.....				2	2			
Average number of—males above 16 years; females above 15 years; children and youth.....						3	3	
Greatest number at any one time during year.....							1	
Average number of—								
Operatives, engineers, and other skilled workmen, overseers, and foremen or superintendents (not general superintendents or managers)—males above 16 years; females above 15 years; children .....								3
Officers or firm members—males; females .....								2
Clerks or salesmen—males above 16 years; females above 15 years; children .....								3
Watchmen, laborers, teamsters, and other unskilled workmen—males above 16 years; females above 15 years; children .....								3
Piecework (not included in the foregoing statement)—males above 16 years; females above 15 years; children .....								3
Wages:								
Total amount paid in wages during year.....		1				1	1	1
Average monthly cost of—male labor; female labor.....				2	2			
Average day's wages—for a skilled mechanic; for an ordinary laborer.....							2	
Amount paid in wages during year to—								
Operatives, engineers, and other skilled workmen, overseers, and foremen or superintendents (not general superintendents or managers)—males above 16 years; females above 15 years; children .....								3
Officers or firm members—males; females .....								2
Clerks or salesmen—males above 16 years; females above 15 years; children .....								3
Watchmen, laborers, teamsters, and other unskilled workmen—males above 16 years; females above 15 years; children .....								3
Piecework (not included in the foregoing statement)—males above 16 years; females above 15 years; children .....								3
Weekly rates of wages paid and average number of hands employed at each rate (under \$5; \$5 and over, but under \$6; \$6 and over, but under \$7; \$7 and over, but under \$8; \$8 and over, but under \$9; \$9 and over, but under \$10; \$10 and over, but under \$12; \$12 and over, but under \$15; \$15 and over, but under \$20; \$20 and over, but under \$25; \$25 and over)—males above 16 years; females above 15 years; children .....								11

a "Firm" instead of "company" in 1890.

b Usually number of men employed, but in a few instances, number of persons employed; in one case, that of "silk," the number of "males" and of "females and children" was asked.

## 108 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

NUMBER OF INQUIRIES OR DETAILS RELATING TO MANUFACTURES: 1810 TO 1890.—C'ed.

Items of inquiry.	1810.	1820.	1840.	1850.	1860.	1870.	1880.	1890.
Materials used:								
Kind; quantity; value.....		3		3	3	3		3
Value.....							a1	
Goods manufactured:								
Kind; quantity; value.....	3		3	3	3	3		3
Kind; value.....		2						
Value.....							a1	
Months in operation:								
Number of months in active operation, reducing part time to full time.....						1		
On full time; on three-fourths time only; on two-thirds time only; on one-half time only; idle.....							5	
On full time; on three-fourths time only; on one-half time only; on one-fourth time only; idle.....								5
Hours of labor:								
Number of hours in the ordinary day of labor—May to November; November to May.....							2	2
Motive power:								
Kind of motive power, machinery, structure, or resource.....				1	1			
Kind of power (steam, water, wind, horse, or hand); if steam or water, number of horsepower.....						2		
If water power is used—on what river or stream; height of fall, in feet; wheels—number; kind; breadth, in feet; revolutions per minute; horsepower.....							7	
If steam power is used—number of boilers; number of engines; horsepower.....							3	3
If water power is used—number of water wheels; horsepower; number of turbine wheels; horsepower.....								4
If other power is used—kind (electric, gas, or other); number of motors; horsepower.....								3
If power is supplied by other establishments—kind of power supplied; horsepower; name of establishment supplying the same.....								3
Machinery:								
Quantity and kind; quantity and operation.....		3	(b)					
Quantity (number of) and kind (name or description).....						2	(c)	(c)
Capital invested by colored persons—number of persons; amount invested.....								2
Total.....	3	d14	5	14	14	18	e29	e88

a Kind, quantity, and value asked on special schedules.

b Number of spindles in cotton manufactories called for.

c Inquiries concerning machinery used were made on the special schedules of manufactures, but not on the general schedule.

d Not including "general remarks concerning the establishment, as to its actual and past condition, the demand for and sale of its manufacture."

e Number of inquiries or details called for by general schedule of manufactures only; additional inquiries on special schedules of manufactures, not common to general schedule or other special schedules, are not included.

From this summary it is seen that at the census of 1810, as shown by the printed report, the only results obtained related to the kind, quantity, and value of goods manufactured, but comprehended very many articles, as indicated by the printed list in Appendix A. The 14 inquiries made in 1820 comprehended not only the kind and value of goods made, but details concerning the amount of capital invested, amount of contingent expenses, persons employed, wages paid, materials used, and machinery. At the census of 1840 the results secured covered only 5 details as to capital invested, persons employed, and the kind, quantity, and value of goods manufactured. At the censuses of 1850 and 1860 the inquiries covered 14 details, and at the census of 1870, 18 details, comprehending the kind of goods manufactured, capital invested, persons employed, wages paid, materials used, goods

made, motive power, and machinery. The same general details were called for in 1880, but, in addition, 5 details were asked concerning months in operation, 2 details concerning hours of labor, and 10 details concerning motive power used, making 29 details in all. At the census of 1890 the number of details required was very much extended, including 9 details for capital invested, 8 for miscellaneous expenses, 14 for persons employed, 15 for amount of wages paid, and 11 for weekly rates of wages; or, in all, 88 details.

In addition to the inquiries made on the general schedule of industry in 1850, 1860, and 1870, four inquiries relating to newspapers and periodicals were made on the schedule for "Social Statistics," as shown by the following summary:

NUMBER OF INQUIRIES OR DETAILS RELATING TO NEWSPAPERS AND PERIODICALS:  
1850 TO 1870.

Items of inquiry.	1850.	1860.	1870.
Name.....	1	1	1
Character.....	1	1	1
How often published.....	1	1	1
Circulation (a).....	1	1	1
Total.....	4	4	4

a Average circulation in 1870.

Many of the inquiries contained in the special schedules of manufactures in 1880 and 1890 were common to the general schedule, but, in addition, many other inquiries were made concerning special industries. A detailed analysis of the inquiries on the special schedules can not be made for want of space, but the total number of inquiries or details contained in each special schedule in 1880 and 1890, and the number not common to the general or other special schedules, are summarized as follows:

NUMBER OF INQUIRIES OR DETAILS ON SPECIAL SCHEDULES OF MANUFACTURES:  
1880 AND 1890.

[Where special schedules are numbered or lettered the numbers or letters precede in each case the name or title of the special schedule.]

1880.

Name, etc., of special schedule.	Number of inquiries or details.	
	Total.	Number not common to general or other special schedules.
1. Agricultural implements.....	30	3
2. Paper mills.....	41	12
3. Boots and shoes.....	33	.....
4. Leather, tanned and curried.....	32	1
5. Lumber mills and sawmills.....	36	6
6. Brickyards and tile works.....	31	.....
7. Flour and grist mills.....	36	8
8. Cheese, butter, and condensed milk factories.....	45	14
9. Slaughtering and meat packing.....	31	1
10. Salt works.....	36	.....

# 110 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## NUMBER OF INQUIRIES OR DETAILS ON SPECIAL SCHEDULES OF MANUFACTURES: 1880 AND 1890—Continued.

1880—Continued.

Name, etc., of special schedule.	Number of inquiries or details.	
	Total.	Number not common to general or other special schedules.
10a. Salt works.....	41	3
11. Small coal mines.....	50	18
12. Quarries.....	42	4
Chemical products.....	80	
Coke.....	104	64
A. Cotton manufacture.....	44	20
B. Print works, bleachery, and dye works.....	34	1
Cotton manufacture (voluntary information).....	141	141
Cotton and cotton fabrics in foreign countries, production of.....	16	16
Gas manufactures.....	56	42
Glass:		
Window glass.....	48	25
Glassware factories.....	58	
Green and black glass bottle factories.....	58	
Plate glass.....	58	
Ice:		
Ice distribution.....	12	9
Ice supply in cities.....	24	21
Iron and steel:		
C. Blast furnaces.....	38	5
D. Rolling mills.....	40	
E. Bessemer and open-hearth steel works.....	40	
F. Crucible, blister, German, and miscellaneous steel works.....	40	
G. Bloomaries and forges.....	40	
Forges and foundries (supplemental).....	8	
Mixed textile goods, dyeing and refinishing.....	44	3
Newspaper press and publishing interests:		
Book, map, and pamphlet publication.....	29	15
Daily journals, etc.....	32	17
Journals and miscellaneous periodicals.....	32	6
Power used in manufactures:		
Water power of rivers.....	23	23
Water power of certain cities.....	31	27
Water power—dams.....	23	16
Water supply of cities and towns.....	72	72
Machine tools.....	16	16
Shipbuilding:		
Iron vessels.....	86	46
Wooden vessels.....	35	29
Wooden vessels—individual.....	34	2
Boats, spars, and masts.....	30	
Silk manufacture:		
Schedule A.....	65	15
Schedule B.....	30	6
Sugar and molasses:		
H. Wool manufacture.....	41	4
Total number of different inquiries or details.....		706

1890.

1. Agricultural implements.....	88	
2. Paper mills.....	91	3
3. Boots and shoes.....	88	
4. Leather, tanned and curried.....	90	2
5. Lumber mills and sawmills.....	190	55
5a. Timber products.....	65	6
5b. Lumber mills and sawmills (incorporated boom companies).....	65	15
5c. Timber products (turpentine, tar, etc.).....	62	4
6. Brickyards.....	88	
7. Flour and grist mills.....	92	2
8. Cheese, butter, and condensed milk.....	107	5
9. Slaughtering and meat packing.....	88	
10. Chemicals and allied products.....	93	5
11. Whiteware and pottery products.....	100	12
11a. Terra cotta, sewer pipe, etc.....	101	1
12. Coke.....	245	86
13. Cotton manufacture.....	102	13
14. Dyeing and finishing of textiles.....	88	

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 111

## NUMBER OF INQUIRIES OR DETAILS ON SPECIAL SCHEDULES OF MANUFACTURES: 1880 AND 1890—Continued.

1890.

Name, etc., of special schedule.	Number of inquiries or details.	
	Total.	Number not common to general or other special schedules.
15. Electrical industry.....	(a)	(a)
16. Plate glass.....	118	10
16a. Window glass.....	116	
16b. Glassware.....	115	
16c. Green and black glass.....	115	
17. Manufactured gas.....	298	208
17b. Isolated plant lighting.....	20	5
17c. Railway car lighting.....	23	15
17d. Marine lighting.....	19	
18. Iron and steel—executive.....	17	
18a. Blast furnaces.....	59	2
18b. Rolling mills.....	65	3
18c. Bessemer, open-hearth, Clapp-Griffiths, etc., steel.....	68	
18d. Crucible, blister, German, etc., steel.....	67	
18e. Bloomaries and forges.....	62	
19. Printing, publishing, and periodical press.....	104	18
20. Wooden vessels.....	100	10
20a. Steel or iron vessels.....	100	
20b. Boats, masts, and spars.....	98	
21. Silk and silk goods.....	92	
22. Wool manufactures.....	92	
23. Hosiery and knit goods.....	89	
24. Carriages and wagons.....	88	
25. Salt works.....	97	9
26. Leather, patent, enameled, and morocco.....	90	
27. Petroleum, refining.....	135	47
Distilled spirits used in the arts, etc.:		
Grocery trade.....	7	
Manufacturers and drug trade.....	7	
Prisons, hospitals, etc.....	7	3
Liquors:		
Distilled.....	6	
Fruit brandy.....	6	
Malt.....	6	
Total number of different inquiries or details.....		b 539

a See supplemental statement for number of inquiries or details for each special schedule relating to the electrical industry.

b Exclusive of inquiries relating to the electrical industry.

## NUMBER OF INQUIRIES OR DETAILS ON SPECIAL SCHEDULES OF MANUFACTURES RELATING TO THE ELECTRICAL INDUSTRY, 1890.

Name, etc., of special schedule.	Number of inquiries or details.	
	Total.	Number not common to general or other special schedules.
15. Electric light and power stations.....	779	729
15a. Manufactures of electrical apparatus, instruments, and supplies.....	109	6
15b. Isolated electric light and power plants.....	77	27
15c. Commercial telegraph companies.....	313	285
(Supplemental No. 1).....	45	
(Supplemental No. 2).....	4	2
(Supplemental No. 3).....	11	9
(Supplemental No. 4).....	11	
(Supplemental No. 5).....	9	8
15d. Commercial telephone companies.....	318	170
(Exchange supplement No. 1).....	110	110
(Underground service supplement No. 2).....	59	16
(Conversations supplement No. 3).....	10	8
(Foreign conversations supplement No. 4).....	10	
15e. Steamboat electric light and power plants.....	82	44

# 112 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## NUMBER OF INQUIRIES OR DETAILS ON SPECIAL SCHEDULES OF MANUFACTURES RELATING TO THE ELECTRICAL INDUSTRY: 1890—Continued.

Name, etc., of special schedule.	Number of inquiries or details.	
	Total.	Number not common to general or other special schedules.
15f. Municipal electric light and power stations .....	853	88
15g. Uses of electricity in medicine and surgery—Manufacture of electrical apparatus .....	20	18
15h. Uses of electricity in medicine and surgery—Medical colleges .....	16	15
15i. Uses of electricity in medicine and surgery—Hospitals .....	26	24
15j. Uses of electricity in medicine and surgery—Physicians .....	54	39
15k. Municipal fire-alarm telegraphs .....	365	207
15k. Municipal fire-alarm telegraphs, underground supplement .....	57	.....
15l. Municipal police-patrol telegraphs .....	466	206
15l. Municipal police-patrol telegraphs, underground supplement .....	57	.....
15m. District messenger companies .....	201	28
15n. Uses of electricity in mining .....	269	197
15o. Telegraph lines used by steam railroad companies .....	131	5
Total number of different inquiries or details .....	.....	2,240

The special schedules of manufactures used at the censuses of 1880 and 1890 represented, after eliminating all inquiries or details common either to the general or other special schedules, an aggregate of 705 different inquiries or details in 1880 and of 539 different inquiries or details in 1890, excluding at the latter census those contained in the special schedules relating to the electrical industry for which the data were not compiled, except for the State of New York. The whole number of different inquiries or details relating to the electrical industry in 1890, as shown by the supplemental statement, was 2,240.

## MINES AND MINING.

Inquiry concerning the products of the mines was made for the first time at the census of 1840, as a part of the "Schedule of Mines, Agriculture, Commerce, Manufactures, etc."

The returns made on this schedule consisted of a summary only by the assistant marshal for the entire district intrusted to him, and the inquiries relating to mines and mining comprehended the following items:

### INQUIRIES RELATING TO MINING: 1840.

Items of inquiry.	1840.
Kind of products (9 kinds specified in schedule) .....	1
Fuel consumed .....	1
Quantity produced .....	1
Value produced .....	1
Number of men employed .....	1
Capital invested .....	1
Total .....	6

The nine products specified in the schedule for which a return of the other items was to be made were cast and bar iron, lead, gold, other metals, anthracite and bituminous coal, domestic salt, and granite, marble, and other stone, but all the inquiries were not made concerning each of these products. For example, the value produced was asked concerning gold, other metals, and granite, marble, and other stone, while for the other products only the quantity produced was called for. In the same way, the amount of fuel consumed was only required concerning cast and bar iron combined, while an additional statement concerning number of establishments reported was confined to cast and bar iron, lead, and gold.

At the censuses of 1850, 1860, and 1870, the inquiries relating to mines and mining were contained in the general schedule of industry, comprehending manufactures, mining, and the fisheries, and represented 14 inquiries or details, as already explained under "Manufactures."

At the censuses of 1880 and 1890 special schedules were used in securing the returns concerning mines and mining, and the number of inquiries contained on each of these special schedules are summarized as follows:

## NUMBER OF INQUIRIES OR DETAILS ON SPECIAL SCHEDULES OF MINING: 1880 AND 1890.

1880.

[Where special schedules are numbered or lettered the numbers or letters precede in each case the name or title of the special schedule.]

Name, etc., of special schedule.	Number of inquiries or details.	
	Total.	Number not common to other special schedules.
Coal:		
Coal mines.....	241	241
Farmers' coal diggings.....	18	8
Copper mines.....	211	20
Iron mines.....	192	23
Iron ore, production of.....	19	12
Lead and zinc mines.....	169	19
Petroleum:		
Its uses and articles manufactured therefrom.....	61	61
Manufactured products of petroleum.....	67	55
Materials manufactured from petroleum used on railroads in United States.....	23	23
Precious metals:		
A. Metallic mines.....	188	183
B. Coal mines.....	180	28
C. Petroleum.....	64	30
D. Charcoal burning.....	66	45
E. Hydraulic mines.....	147	106
F. Hydraulic ditches.....	54	38
G. Ore-dressing works.....	87	50
H. Amalgamating mills.....	84	24
I. Stamp battery.....	77	75
K. Pan amalgamation.....	130	122
L. Roasting furnaces (in amalgamating mills).....	46	42
M. Alternate amalgamation and concentration of battery sands.....	32	28
N. Alternate concentration and amalgamation of battery sands.....	53	39
O. Arrastras.....	71	26
Smelting works:		
P. Smelting works in general.....	113	49
P1. Preliminary operations.....	29	14
P2. Smelting in shaft furnaces.....	41	33
P3. Smelting in reverberatory furnaces.....	29	6
P4. Desilverization by zinc.....	26	23
P5. Pattinsonizing.....	17	4

# 114 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## NUMBER OF INQUIRIES OR DETAILS ON SPECIAL SCHEDULES OF MINING: 1880 AND 1890—Continued.

1880—Continued.

Name, etc., of special schedule.	Number of inquiries or details.	
	Total.	Number not common to other special schedules.
Smelting works—Continued.		
P6. Improving of lead .....	19	12
P7. Cupellation .....	26	18
Quicksilver reduction:		
Q. Quicksilver reduction in general .....	88	13
Q1. Reduction in retorts .....	21	14
Q2. Reduction in furnaces .....	32	8
Q3. Quicksilver condensers .....	23	21
Slate quarries .....	52	9
Stone quarries:		
City statistics, uses of stone .....	21	20
Laboratory notes .....	13	12
Quarries of stone .....	56	50
Quarries of stone (ornamental) .....	23	10
Routes of transportation—railroad .....	8	8
Routes of transportation—water .....	9	2
Total number of different inquiries or details .....		1,619

1890.

1. Metals not specified .....	59	59
2. Iron ore mines .....	58	2
3. Gold and silver mines .....	60	7
3a. Gold and silver mines and reduction works .....	69	11
3b. Gold and silver ore and bullion, transportation of .....	12	9
4. Copper mines .....	56	
5. Lead mines .....	57	1
6. Zinc mines .....	56	
7. Quicksilver mines .....	55	2
8. Quicksilver reduction works .....	59	5
9. Manganese ore mines .....	60	1
11. Precious stones .....	34	16
12. Coal mines .....	65	9
12a. Distribution of coal for consumption .....	55	55
13. Quicksilver mines and reduction works .....	62	6
14. Petroleum, crude .....	92	79
15. Natural gas .....	99	33
16. Stone quarries .....	49	5
17. Mineral waters .....	54	10
18. Copper smelters and refiners .....	46	2
19. Lead smelters and refiners .....	45	1
20. Lead refiners .....	44	
21. Zinc reduction works .....	45	
Total number of different inquiries or details .....		313

At the census of 1880 there were 42 special schedules relating to mines and mining, including 26 schedules pertaining to the precious metals, and the whole number of different inquiries or details called for by these special schedules was 1,619. At the census of 1890 23 special schedules were used, and the whole number of different inquiries or details comprehended by them was 313.

## FISH AND FISHERIES.

The first inquiry concerning the products of the fisheries was made at the census of 1840 and comprehended 5 items or details calling for a summary only by the assistant marshal in the "Schedule of Mines,

Agriculture, Commerce, Manufactures, etc.," as previously explained. The 5 items relating to the fisheries at the census of 1840 are summarized as follows:

## INQUIRIES RELATING TO FISH AND FISHERIES: 1840.

Items of inquiry.	1840.
Kind of products (5 kinds specified in schedule) .....	1
Quantity produced .....	1
Value produced .....	1
Number of men employed .....	1
Capital invested .....	1
Total .....	5

The 5 products specified in the schedule for which a return of the other items was called for were smoked or dried fish, pickled fish, spermaceti oil, whale and other fish oil, and whalebone and other productions of the fisheries. The value only of whalebone and other productions was called for, while for each of the other four products the inquiry was made concerning the quantity produced. The inquiries relating to the number of men employed and amount of capital invested were limited to a general statement concerning all the products specified and did not call for a separate return for each product.

At the censuses of 1850, 1860, and 1870 the inquiries relating to the fisheries were contained in the general schedule of industry, comprehending manufactures, mining, and the fisheries, and represented 14 inquiries or details, as already explained under "Manufactures."

At the census of 1880 the inquiries relating to fish and the fisheries were conducted by the census office in cooperation with the officials of the United States Fish Commission, and the inquiries emanating directly from the census office were contained in 5 schedules or circulars of inquiry. At the census of 1890 the inquiry was wholly conducted by the census office, and 15 special schedules were used. The total number of different inquiries or details covered by the special schedules in 1880 was 87 and in 1890 248, as shown by the following summary:

NUMBER OF INQUIRIES OR DETAILS ON SPECIAL SCHEDULES OF FISH AND FISHERIES:  
1880 AND 1890.

1880.

Name, etc., of special schedule.	Number of inquiries or details.	
	Total.	Number not common to other special schedules.
Fish trade and consumption of fish, returns of circulars relating to .....	26	26
Fresh fish, circular to dealers in .....	20	20
River fisheries .....	10	10
River fisheries, record of .....	27	26
Salt fish, circulars to dealers in .....	12	6
Total number of different inquiries or details .....	.....	87

# 116 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## NUMBER OF INQUIRIES OR DETAILS ON SPECIAL SCHEDULES OF FISH AND FISHERIES: 1880 AND 1890—Continued.

1890.

Name, etc., of special schedule.	Number of inquiries or details.	
	Totals.	Number not common to other special schedules.
Atlantic and Gulf boat fisheries .....	17	4
Fisheries of the Great Lakes.....	57	5
Gulf fisheries.....	33	2
Inland fisheries.....	11	4
Pacific fisheries.....	59	.....
Alligator fishery.....	25	16
Cod and ground fisheries.....	52	5
Lobster fishery.....	24	3
Mackerel fishery.....	50	2
Menhaden fishery.....	77	25
Sea-herring fisheries.....	52	.....
Shad and alewife fisheries.....	60	60
Special oyster schedule.....	86	61
Sponge fisheries.....	47	8
Whale fisheries.....	77	52
Total number of different inquiries or details .....		248

The results derived from the joint investigation concerning fish and the fisheries are published in the special reports of the Fish Commission and do not appear in the census report of 1880.

### COMMERCE.

The only inquiries relating to commerce were made at the census of 1840, as a part of the "Schedule of Mines, Agriculture, Commerce, Manufactures, etc.," as already explained. The inquiries relating to commerce in 1840 comprehended 3 details concerning commercial houses in foreign trade and commission houses; 2 details concerning retail dry goods, grocery, and other stores; 3 details concerning lumber yards and trade; 1 detail concerning internal transportation, and 2 details concerning butchers, packers, etc., or 11 details in all, as shown by the following summary:

#### INQUIRIES RELATING TO COMMERCE: 1840.

Items of inquiry.	1840.
Commercial houses in foreign trade and commission houses (number of each; capital invested) ..	3
Retail dry goods, grocery, and other stores (number; capital invested) .....	2
Lumber yards, and trade (number; capital invested; number of men employed).....	3
Internal transportation (number of men employed).....	1
Butchers, packers, etc. (capital invested; number of men employed) .....	2
Total.....	11

## SOCIAL STATISTICS.

The subjects covered by the schedule of social statistics used at the censuses of 1850, 1860, and 1870 were crime; pauperism; valuation, taxation, and indebtedness; education; libraries; newspapers and periodicals; religion; seasons and crops; and wages and prices. This schedule was withdrawn from the general enumerators at the censuses of 1880 and 1890, under the provisions of the respective census acts, and the information relating to the several subjects collected by correspondence and special agents. The analysis of the inquiries relating to the several subjects specified on the schedule of social statistics is considered under each of the above-named heads.

## EDUCATION.

At the census of 1840 the population schedule contained four inquiries relating to schools, etc., added to that schedule, as a matter of convenience merely, and evidently intended to secure an aggregate return by the assistant marshal for his entire district. These inquiries are summarized as follows:

## INQUIRIES RELATING TO EDUCATION: 1840.

Items of inquiry.	1840.
Number of students in universities or colleges.....	1
Number of scholars in academies and grammar schools.....	1
Number of scholars in primary and common schools.....	1
Number of scholars at public charge.....	1
Total .....	4

The schedule for "Social Statistics" called for a return concerning colleges, academies, and schools of 8 details at the censuses of 1850 and 1860 and of 10 details at the census of 1870, as follows:

## INQUIRIES RELATING TO COLLEGES, ACADEMIES, AND SCHOOLS: 1850 TO 1870.

Items of inquiry.	1850.	1860.	1870.
Number .....	1	1	1
Character, rank, or kind (a) .....	1	1	1
Teachers:			
Number of.....	1	1	.....
Average number of—males; females .....	.....	.....	2
Pupils:			
Number of.....	1	1	.....
Average number of—males; females .....	.....	.....	2
Amount annually realized from endowment; raised by taxation; received from public funds; received from other sources .....	4	4	4
Total .....	8	8	10

a 20 kinds of schools specified in schedule.

# 118 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

The special schedules relating to education which were used at the censuses of 1880 and 1890, in lieu of the inquiries previously made on the schedule of social statistics, were 14 in number in 1880 and 10 in 1890. The number of different inquiries or details contained in these special schedules was 907 in 1880 and 76 in 1890, as follows:

## NUMBER OF INQUIRIES OR DETAILS ON SPECIAL SCHEDULES OF EDUCATION: 1880 AND 1890.

[The special schedules in 1880 were numbered, and the Roman numerals precede in each case the name or title of the special schedule.]

### 1880.

Name, etc., of special schedule.	Number of inquiries or details.	
	Total.	Number not common to other special schedules.
I. Public elementary schools .....	102	102
II. Public high schools .....	110	84
III. Private elementary schools .....	128	28
IV. Private high schools .....	128	7
IV. Private high schools (revised) .....	113	7
VI. Schools for special classes .....	85	20
VII. Industrial training schools .....	79	26
VIII. Business colleges .....	87	29
IX. Superior schools .....	310	264
X. Teachers' institutes .....	58	55
XI. Professional schools .....	242	86
XII. Educational associations .....	81	62
XIII. Museums and collections .....	218	185
County superintendents' return .....	6	2
Total number of different inquiries or details .....		907

### 1890.

Public schools .....	36	26
Report of public schools of cities, towns, and other civil divisions .....	39	1
Private and parochial schools, not including universities, colleges, and professional schools .....	38	14
Commercial schools and business colleges .....	32	
Law schools .....	34	
Medical colleges .....	47	18
Schools of pedagogy .....	44	
Schools of technology .....	56	
Schools of theology .....	24	
Universities and colleges .....	58	12
Total number of different inquiries or details .....		76

No results concerning education were published at the census of 1880, as the tabulations were not completed, but at the census of 1890 the results were printed originally as a monograph, and later bound up with part 2 of the report on population.

## INSURANCE.

Under the provisions of section 172 of the act of March 3, 1879, the financial and business operations of life and fire and marine insurance companies and associations were made a subject of census inquiry for the first time at the census of 1880. The inquiries to be made were

specified in the act, and provision was made for similar inquiries at the census of 1890. The inquiries relating to insurance at the census of 1880 were contained in 15 special schedules, comprehending 5,779 different details, and at the census of 1890 in 12 special schedules, comprehending 3,921 details, as shown by the following summary:

NUMBER OF INQUIRIES OR DETAILS ON SPECIAL SCHEDULES OF INSURANCE: 1880  
AND 1890.

1880.

Name, etc., of special schedule.	Number of inquiries or details.	
	Total.	Number not common to other special schedules.
<i>Fire and marine insurance.</i>		
<i>Stock companies:</i>		
Report for year ending Dec. 31, 1879 .....	381	381
Report of ten years' business, from Jan. 1, 1870, to Dec. 31, 1879 .....	2,032	1,992
Report of the business done in each state for ten years—1870 to 1879 .....	99	99
Report of special fire hazards and classified marine risks .....	1,927	1,927
<i>Mutual companies:</i>		
Report for year ending Dec. 31, 1879 .....	376	61
Report of ten years' business, from Jan. 1, 1870, to Dec. 31, 1879 .....	1,968	642
Report of the business done in each state for ten years—1870 to 1879 .....	99	
Report of special fire hazards and classified marine risks .....	1,927	
<i>Stock or mutual companies:</i>		
General statement of companies (stock or mutual) .....	384	256
Report of insurance agencies .....	28	28
Fire departments and water supply of cities and towns .....	79	79
Losses by fire during the years 1879 and 1880 .....	5	5
<i>Life insurance.</i>		
Schedule A.—Financial statement for year ending Dec. 31, 1879 .....	119	119
Schedule B.—Policies issued and policies terminated during each calendar year of company's existence .....	72	72
Schedule C.—Life insurance on the cooperative or assessment plan .....	118	118
Total number of different inquiries or details .....		5,779

1890.

<i>Fire, marine, inland, and tornado insurance.</i>		
Statement of business transacted during the year 1889 .....	452	452
Statement of the fire, marine, inland, and tornado insurance business transacted from 1880 to 1889, inclusive .....	1,055	1,019
Report of business done in each state and territory from 1880 to 1889, inclusive .....	248	248
Statement of the fire and tornado insurance business transacted from 1880 to 1889, inclusive .....	210	187
Fire departments and water supply .....	167	185
Estimated number and value of dwellings and other buildings .....	7	7
<i>Life insurance.</i>		
Schedule A.—Statement of business transacted during the year 1889 .....	121	121
Schedule B.—Statement of business transacted from 1880 to 1889, inclusive .....	1,102	1,022
Report of business done in each state and territory from 1880 to 1889, inclusive .....	202	202
Report of business done in 1889, and from 1880 to 1889, inclusive. (Assessment companies) .....	701	470
Report of business done in each state and territory from 1880 to 1889, inclusive. (Assessment companies) .....	101	22
Beneficiary associations .....	36	36
Total number of different inquiries or details .....		3,921

## 120 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Beyond a preliminary statement in part 1 of the compendium of the tenth census, no report concerning insurance was made at the census of 1880, but the results derived from the special inquiries made in 1890 are printed in two volumes of the final census report.

### LIBRARIES.

The schedule for social statistics contained at the censuses of 1850, 1860, and 1870 three inquiries concerning libraries, as follows:

#### INQUIRIES RELATING TO LIBRARIES: 1850 TO 1870.

Items of inquiry.	1850.	1860.	1870.
Number .....	1	1	1
Kind .....	1	1	a1
Number of volumes .....	1	1	1
Total .....	3	3	3

a Seven classes of libraries are specified in schedule.

At the census of 1880 a special schedule relating to libraries was used, and was supplemented by a card inquiry, the total number of different inquiries or details represented by these two sources of information being 196, as shown by the following summary:

#### NUMBER OF INQUIRIES OR DETAILS ON SPECIAL SCHEDULES OF LIBRARIES: 1880.

Name, etc., of special schedule.	Number of inquiries or details.	
	Total.	Number not common to other special schedules.
Libraries (special schedule) .....	189	189
Libraries (supplemental card inquiry) .....	27	7
Total number of different inquiries or details .....		196

These inquiries were made in connection with the investigation concerning the general subject of "Education," but, as indicated under that heading, no report embodying the results of this inquiry was ever published.

### REAL ESTATE MORTGAGES.

By the terms of the act of March 1, 1889, under which the eleventh census was taken, the Superintendent of Census was required to collect the statistics of and relating to the recorded indebtedness of private corporations and individuals. For this purpose various slips were used by abstracters (special agents of the census) in the offices of recorders for recording mortgages made for the ten years 1880 to 1889, including all instruments having the real if not the legal nature

of mortgages. The number of inquiries or details covered by these slips was as follows:

NUMBER OF INQUIRIES OR DETAILS ON SPECIAL SCHEDULES OF REAL ESTATE MORTGAGES: 1890.

Name, etc., of special schedule.	Number of inquiries or details.	
	Total.	Number not common to other special schedules.
Recorded indebtedness:		
Series 1.....	13	13
Series 2.....	11	2
Partial-payment slips.....	6	6
Release schedule.....	5	5
Total number of different inquiries or details.....		26

**FARMS AND HOMES: PROPRIETORSHIP AND INDEBTEDNESS.**

At the census of 1890 an inquiry was made on the population schedule, under the provisions of the supplemental act of February 22, 1890, as to the ownership of the farm or home occupied, and where owned whether or not the farm or home was mortgaged, and in such cases the name and post-office of the owner. When the population schedules were returned to the census office the name and address of each person reported by the census enumerators as owning and occupying a mortgaged farm or home was recorded and a schedule, in circular form, was sent by mail, calling for the amount of the mortgage debt unpaid June 1, 1890, the annual rate of interest, and the object for which the debt was incurred, representing, in all, 5 items of inquiry.

**RELIGIOUS ORGANIZATIONS.**

The inquiries made on the schedule for social statistics, under the caption of "Religion," at the censuses of 1850, 1860, and 1870, comprehended 4 items in 1850 and 1860 and 5 items in 1870, as follows:

INQUIRIES RELATING TO RELIGION: 1850 TO 1870.

Items of inquiry.	1850.	1860.	1870.
Number of churches.....	1	1	1
Number of church organizations.....			1
Number of church edifices.....			1
Denomination.....	1	1	1
Number each will accommodate.....	1	1	1
Value of church property.....	1	1	1
Total.....	4	4	5

## 122 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

At the census of 1880 special schedules were used, calling for 372 details concerning churches, Sabbath schools, associations, etc., in connection with the general subject of "Education," but, as stated under that heading, the tabulations were not completed and no results are contained in the census report for 1880. At the census of 1890 two special schedules only were used, one relating to church organizations and one to Sunday schools, comprehending in all but 13 details. The number of inquiries or details contained in each of the special schedules used in 1880 and 1890 are summarized as follows:

### NUMBER OF INQUIRIES OR DETAILS ON SPECIAL SCHEDULES OF RELIGIOUS ORGANIZATIONS: 1880 AND 1890.

[Three of the special schedules used in 1880 were numbered, and the Roman numerals precede in each case the name or title of the schedule.]

#### 1880.

Name, etc., of special schedule.	Number of inquiries or details.	
	Total.	Number not common to other special schedules.
I. Churches .....	115	115
II. Sabbath schools .....	72	70
III. Associations for men and women .....	182	174
Peace denominations .....	13	8
Spiritualist societies .....	16	5
Total number of different inquiries or details .....	.....	372

#### 1890.

Church organizations .....	7	7
Sunday schools .....	6	6
Total number of different inquiries or details .....	.....	13

### SEASONS AND CROPS.

An inquiry was made at the censuses of 1850 and 1860 concerning seasons and crops, on the schedule for social statistics, but this inquiry was abandoned at the census of 1870 as being of no statistical value. The items of inquiry in 1850 and 1860 were as follows:

#### INQUIRIES RELATING TO SEASONS AND CROPS: 1850 AND 1860.

Items of inquiry.	1850.	1860.
What crops are short .....	1	1
To what extent .....	1	1
Usual average crop .....	1	1
Total .....	3	3

## SOCIAL STATISTICS OF CITIES.

The social statistics of cities formed the subject of a special investigation at the census of 1880, and a similar inquiry was made at the census of 1890. For this purpose 11 special schedules were used in 1880 and 13 in 1890, comprehending at each census upward of 200 inquiries or details concerning altitude, topography, etc., streets, drainage and sewerage, street lighting, public parks, cemeteries, fire and police departments, etc., as shown by the following summary:

## NUMBER OF INQUIRIES OR DETAILS ON SPECIAL SCHEDULES OF SOCIAL STATISTICS OF CITIES: 1880 AND 1890.

## 1880.

Name, etc., of special schedule.	Number of inquiries or details.	
	Total.	Number not common to other special schedules.
A. Altitude, topography, etc.....	29	29
B. Streets, etc.....	55	55
C. Public parks and pleasure grounds.....	12	12
D. Places of amusement.....	11	11
E. Sewerage and drainage.....	18	18
F. Cemeteries.....	7	7
G. Markets.....	9	9
H. Sanitary authority.....	41	41
I. Gas-light companies.....	37	37
J. Municipal cleansing.....	51	51
K. Police.....	29	29
Total number of different inquiries or details.....	.....	299

## 1890.

A. Altitude, topography, etc.....	10	10
B. Cemeteries.....	10	10
C. Drainage and sewerage.....	29	29
D. Fire department.....	28	28
E. Government.....	10	10
F. Licenses.....	13	13
G. Parks.....	16	16
H. Police.....	14	14
I. Public buildings.....	8	8
K. Railroads.....	5	5
L. Streets and alleys.....	38	38
M. Street lighting.....	5	5
N. Waterworks.....	36	36
Total number of different inquiries or details.....	.....	222

**TRADE SOCIETIES AND STRIKES AND LOCKOUTS.**

In connection with the investigation relative to the rates of wages paid in manufacturing industries for a series of years, which was undertaken at the census of 1880, an effort was made to collect data concerning the number, membership, objects, receipts and expenditures, methods, etc., of the trade societies of the United States, and also the number, location, causes, and results of strikes and lockouts during the calendar year 1880. The inquiries relating to these two subjects were contained on 4 special schedules, 3 relating to trade societies and 1 to strikes and lockouts, comprehending 101 inquiries or details, as follows:

NUMBER OF INQUIRIES OR DETAILS ON SPECIAL SCHEDULES OF TRADE SOCIETIES AND STRIKES AND LOCKOUTS: 1880.

Name, etc., of special schedule.	Number of inquiries or details.	
	Total.	Number not common to other special schedules.
Trade societies.....	78	78
Names and addresses of labor organizations.....	3	3
Membership in trade and labor organizations.....	4	4
Strikes and lockouts.....	16	16
Total number of different inquiries or details.....	.....	101

No attempt was made at the census of 1890 to collect similar data concerning these two subjects.

**TRANSPORTATION.**

Under the provisions of the act governing the taking of the census of 1880, the Superintendent of Census was required to collect statistics relating to the various agencies of transportation, including steam railroads, steamboat companies, express companies, and telegraph companies. Similar data were collected at the census of 1890, comprehending steam railroads, steam navigation, sailing vessels, and express companies, and, in addition, data relating to rapid-transit facilities in cities. In 1880 the 7 special schedules relating to transportation comprehended 466 different inquiries or details, and in 1890 the 12 special schedules used comprehended 1,464 different inquiries or details, as follows:

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 125

## NUMBER OF INQUIRIES OR DETAILS ON SPECIAL SCHEDULES OF TRANSPORTATION: 1880 AND 1890.

1880.

Name, etc., of special schedule.	Number of inquiries or details.	
	Total.	Number not common to other special schedules.
Steam railroads:		
Physical characteristics.....	119	119
Financial exhibit.....	256	256
Steamboat companies.....	38	21
Express companies.....	56	23
Express business.....	10	2
Telegraph companies.....	67	24
Telephone-telegraph companies.....	74	16
Total number of different inquiries or details .....		466

1890.

Steam railroads—1880 to 1889 .....	580	580
Steam railroads—operating.....	212	189
Steam railroads—subsidiary .....	94	4
Steam navigation.....	243	243
Sailing vessels .....	71	
Express companies .....	70	70
Express companies (division report) .....	77	23
Rapid-transit facilities in cities:		
Cable railways.....	154	154
Electric railways.....	285	187
Railway mileage from 1880 to 1889.....	40	40
Railways operated by animal power.....	127	11
Steam passenger railways.....	130	13
Total number of different inquiries or details .....		1,464

## WAGES AND PRICES.

At the censuses of 1850, 1860, and 1870 6 inquiries relating to wages and prices were contained on the schedule of social statistics, as follows:

### INQUIRIES RELATING TO WAGES AND PRICES: 1850 TO 1870.

Items of inquiry.	1850.	1860.	1870.
Average monthly wages to a farm hand, with board (a) .....	1	1	1
Average wages to a day laborer, with board .....	1	1	1
Average wages to a day laborer, without board .....	1	1	1
Average day wages to a carpenter, without board .....	1	1	1
Weekly wages to a female domestic, with board .....	1	1	1
Price of board to a laboring man per week.....	1	1	1
Total .....	6	6	6

a "Average wages to a farm hand per month, hired by the year, and board," in 1870.

## 126 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

At the census of 1880 a special investigation was made concerning the rates of wages paid in the principal manufacturing industries of the country, and the average retail prices of necessities of life, for a series of years. Three schedules were used for this purpose, two relating to wages and one to prices, and the number of inquiries or details asked is shown by the following summary:

NUMBER OF INQUIRIES OR DETAILS ON SPECIAL SCHEDULES OF WAGES AND PRICES: 1880.

Name, etc., of special schedule.	Number of inquiries or details.	
	Total.	Number not common to other special schedules.
Wages in manufacturing industries .....	127	127
Wages in manufacturing industries (building trades) .....	78	6
Average retail prices of necessities of life .....	34	34
Total number of different inquiries or details .....		167

### WEALTH, DEBT, AND TAXATION.

Inquiries relating to valuation and taxation were made, for the first time, at the census of 1850 on the schedule of social statistics, and these inquiries were repeated on the same schedule in substantially the same form at the censuses of 1860 and 1870, but at the latter census the schedule comprehended additional inquiries concerning the bonded and other debt of counties and towns and cities, as shown by the following summary:

INQUIRIES RELATING TO WEALTH, DEBT, AND TAXATION: 1850 TO 1870.

Items of inquiry.	1850.	1860.	1870.
Valuation of estate: Real estate; personal estate; total; how valued; true valuation.....	5	5	5
Annual taxes: Name or kind of each; amount of each; how paid .....	3	3	.....
Taxation—not national: State—of all kinds; county—of all kinds; town, city, township, parish (civil), or borough—of all kinds; principal kinds of taxes included in the foregoing.....			4
Public debt: County debt (bonded; all other).....			2
Town, city, township, parish (civil), or borough (bonded; all other).....			2
Total .....	8	8	13

The schedule of social statistics was withdrawn at the censuses of 1880 and 1890, under the law, and the statistics of valuation, taxation, and indebtedness collected by the use of special schedules through special agents and correspondence. Five special schedules, comprehending 105 different inquiries or details, were used in 1880, and 12 schedules, comprehending 1,970 inquiries or details, were used in 1890, as follows:

NUMBER OF INQUIRIES OR DETAILS ON SPECIAL SCHEDULES OF WEALTH, DEBT, AND TAXATION: 1880 AND 1890.

1880.

Name, etc., of special schedule.	Number of inquiries or details.	
	Total.	Number not common to other special schedules.
Assessment of property in cities and towns.....	10	10
Financial condition of cities.....	89	89
Financial condition of counties.....	38	4
Financial condition of school districts.....	2	2
Financial condition of towns, villages, and townships.....	41	.....
Total number of different inquiries or details.....	.....	105

1890.

County finance.—Expenditures.....	785	785
County finance.—Revenues.....	715	715
Local finance.—Receipts and expenditures.....	430	89
Local indebtedness.....	18	18
Municipal finance.—Expenditures.....	785	.....
Municipal finance.—Revenues.....	715	.....
Receipts and expenditures of counties.....	68	68
State indebtedness (interest-bearing debt).....	37	37
State indebtedness (receipts and expenditures).....	126	126
State resources.....	26	26
Public debt, currency, receipts, and expenditures of foreign countries, statement concerning the.....	62	62
Valuation and taxation of counties.....	44	44
Total number of different inquiries or details.....	.....	1,970

ALASKA.

By the terms of the eighth section of the amendatory act of April 20, 1880, the Superintendent of Census was required to collect and publish the statistics of the population, industries, and resources of the district of Alaska with such fullness as he deemed expedient and practicable under the appropriations made for the expenses of the tenth census. Under this provision of the census act a general report on the population and resources of Alaska was made at the census of 1880, but no printed schedules of inquiry were used.

## 128 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

At the census of 1890 similar provision was made for a special census of the population, industries, and resources of Alaska, and for this purpose 9 special schedules were used, as follows:

### NUMBER OF INQUIRIES OR DETAILS ON SPECIAL SCHEDULES OF ALASKA: 1890.

[The special schedules in 1890 were numbered, and the number precedes in each case the name or title of the special schedule.]

Name, etc., of special schedule.	Number of inquiries or details.	
	Total.	Number not common to general or other special schedules.
1. Population and social statistics .....	40	.....
2. Indian population and social statistics .....	27	1
3. Schools .....	20	14
4. Churches .....	9	6
5. Small fishing with less than \$100 capital .....	14	7
6. Canneries and deep-sea fisheries .....	54	50
7. Fur trade .....	45	45
8. Gold and silver mines .....	54	.....
9. Coal mines .....	59	.....
Total number of different inquiries or details .....	.....	123

The inquiries contained in the schedules numbered 1 and 2 corresponded substantially to those contained in the general population schedule, while the special schedules numbered 8 and 9 were an exact counterpart of the special schedules relating to gold and silver mines and coal mines which were used in the investigation of mines and mining for the whole country. The number of inquiries or details contained on the nine schedules which were not common to the general or other special schedules used in the census of the United States proper was 123.

### INDIANS.

Indians not taxed were made the subject of census inquiry for the first time in 1880, under a provision of the census act which called for a special enumeration of all Indians not taxed, within the jurisdiction of the United States, together with such other information as to their condition as might be obtainable. This investigation was conducted, in cooperation with the Commissioner of Indian Affairs, by special agents. Four special schedules relating to population, vital statistics, industries, and education were used, but no results derived from this investigation appear in the census report for 1880. At the census of 1890 the Superintendent of Census was required to make an enumeration of all Indians living within the jurisdiction of the United States, classifying them as Indians taxed and Indians not taxed, and to secure such information as to their condition as could be obtained. Six schedules, five relating to population and one relating to schools,

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 129

were used in 1890, and the statistics called for by these schedules were collected by special agents. The number of inquiries or details not common to the general or other special schedules used in the census work proper in 1880 was 221 and in 1890 283, as shown by the following summary:

## NUMBER OF INQUIRIES OR DETAILS ON SPECIAL SCHEDULES OF INDIANS: 1880 AND 1890.

### 1880.

[The special schedules in 1880 were numbered and the number precedes in each case the name or title of the special schedule.]

Name, etc., of special schedule.	Number of inquiries or details.	
	Total.	Number not common to general or other special schedules.
1. Population .....	50	28
2. Vital statistics.....	10	3
3. Industries.....	131	131
4. Education.....	59	59
Total number of different inquiries or details .....		221

### 1890.

Population:		
General schedule .....	216	216
Six Nations .....	52	12
Five Civilized Tribes.....	52	
Indians in tribes or living on reservations or at posts under the jurisdiction of the United States.....	12	
Indians living away from reservations .....	6	1
Schools .....	54	54
Total number of different inquiries or details .....		283

## SURVIVING SOLDIERS, ETC., AND INMATES OF SOLDIERS' HOMES.

At the census of 1840 an inquiry was made on the population schedule concerning pensioners for revolutionary or military services, the results being published in a separate volume giving their names, ages, and places of residence, and the names of the heads of families with whom they resided June 1, 1840. At the census of 1890 special inquiry was made as to the names, organizations, and length of service of surviving Union veterans of the civil war, and of the widows of such as had died, under the terms of the census act, but, as already stated in the historical sketch of the work of the eleventh census, the results of this special census of veterans were never compiled. At the same census supplemental inquiry was made concerning the inmates of soldiers' homes, comprehending data as to date of admission to institution, cause of admission or retention, whether able-bodied, how supported, military service, etc. The number of inquiries or details covered by these two special schedules is as follows:

# 130 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

NUMBER OF INQUIRIES OR DETAILS ON SPECIAL SCHEDULES OF SURVIVING SOLDIERS,  
ETC., AND INMATES OF SOLDIERS' HOMES : 1890.

Name, etc., of special schedule.	Number of inquiries or details.	
	Total.	Number not common to other special schedules.
Surviving soldiers, etc. ....	8	8
Inmates of soldiers' homes. ....	a 69	42
Total number of different inquiries or details. ....		50

a Including 27 inquiries or details duplicated from general population schedule.

As previously stated, it has been impossible, for want of space, to analyze the inquiries relating to the many special subjects of investigation undertaken at the last two censuses, but the brief synopsis which has been given, taken in connection with the schedule inquiries as reproduced in Appendix A, will enable the reader and student of statistical data to form some idea of the magnitude of the United States census as carried out under the provisions of the acts governing the censuses of 1880 and 1890.

## APPENDIX A.

### SCHEDULE INQUIRIES, INSTRUCTIONS, ETC.

[In reproducing the schedule inquiries pertaining to the various subjects of investigation at each census, the tabular form of the schedule has not been preserved except where necessary, but explanatory notes concerning such cases will be found under each heading.

Inquiries common to other schedules are omitted to save space and to avoid unnecessary repetition, as indicated by explanatory notes wherever such omissions occur.

The instructions to the assistant marshals in 1820, 1830, 1840, 1850, and 1870, and to the census enumerators in 1880 and 1890, are appended to the inquiries relating to population at each census, respectively.]

### POPULATION.

[There was no printed form of schedule used in enumerating the population until the census of 1830. Prior to that census the blanks used by the assistant marshals were ruled by them by hand, following the form of the schedule inquiries prescribed by each census act, respectively. The inquiries were placed at the heads of columns and the entries made on horizontal cross lines, but there was no uniformity in the size or shape of the sheets used by the assistant marshals for this purpose.

In the printed forms of schedules used from 1830 to 1880, inclusive, the inquiries are printed at the heads of columns and horizontal cross lines are provided for the entries to be made thereon, the number of entries to each page varying from 28 in 1830 to 50 in 1880.

At the census of 1890 a family schedule was used, by which a separate sheet was provided for the enumeration of all the members of each family. In this schedule the inquiries are printed at the side of the schedule and columns are provided for five entries to each printed page, the entries concerning each person enumerated being made vertically instead of horizontally, as at the preceding censuses.

From 1790 to 1840, inclusive, the return was made with respect to the number of persons in each specified class of the population, in connection with the name of the head of each family enumerated, and from 1850 to 1890, inclusive, with respect to each individual included in the enumeration.

The inquiries relating to population are identical at the censuses of 1800 and 1810.

The inquiries relating to "schools" in 1840 were added to the schedule relating to population for convenience merely, and called for a summary for each district only.

At the censuses of 1850 and 1860 two schedules were used for enumerating population, one relating to free inhabitants and one to slaves.

Prior to 1850 the inquiries on the schedule relating to population are not numbered.

The circulars of instructions to marshals and assistant marshals at the censuses of 1820, 1830, 1840, 1850, and 1870, and the instructions to enumerators at the censuses of 1880 and 1890, follow the inquiries relating to population for each census, respectively. The instructions governing the remaining censuses are not reproduced, as no copies of them have been found.]

**CENSUS OF 1790.**

SCHEDULE of the whole number of Persons within the Division allotted to .....

Names of heads of families.  
Free white males of 16 years and upwards, including heads of families.  
Free white males under 16 years.  
Free white females, including heads of families.  
All other free persons.  
Slaves.

**CENSUS OF 1800.**

SCHEDULE of the whole number of Persons within the Division allotted to .....

Name of county, parish, township, town, or city, where the family resides.  
Names of heads of families.  
Free white males:  
    Under 10 years of age.  
    Of 10 and under 16.  
    Of 16 and under 26, including heads of families.  
    Of 26 and under 45, including heads of families.  
    Of 45 and upwards, including heads of families.  
Free white females:  
    Under 10 years of age.  
    Of 10 and under 16.  
    Of 16 and under 26, including heads of families.  
    Of 26 and under 45, including heads of families.  
    Of 45 and upwards, including heads of families.  
All other free persons, except Indians not taxed.  
Slaves.

**CENSUS OF 1810.**

SCHEDULE of the whole number of Persons within the Division allotted to .....

Name of county, parish, township, town, or city, where the family resides.  
Names of heads of families.  
Free white males:  
    Under 10 years of age.  
    Of 10 and under 16.  
    Of 16 and under 26, including heads of families.  
    Of 26 and under 45, including heads of families.  
    Of 45 and upwards, including heads of families.  
Free white females:  
    Under 10 years of age.  
    Of 10 and under 16.  
    Of 16 and under 26, including heads of families.  
    Of 26 and under 45, including heads of families.  
    Of 45 and upwards, including heads of families.  
All other free persons, except Indians not taxed.  
Slaves.

**CENSUS OF 1820.**

SCHEDULE of the whole number of Persons within the Division allotted to .....

Name of the county, parish, township, town, or city, where the family resides.  
Names of heads of families.  
Free white males:  
    Under 10 years of age.  
    Of 10 and under 16.  
    Between 16 and 18.  
    Of 16 and under 26, including heads of families.  
    Of 26 and under 45, including heads of families.  
    Of 45 and upwards, including heads of families.

## Free white females:

- Under 10 years of age.
- Of 10 and under 16.
- Of 16 and under 26, including heads of families.
- Of 26 and under 45, including heads of families.
- Of 45 and upwards, including heads of families.

## Foreigners not naturalized.

Number of persons engaged in agriculture.

Number of persons engaged in commerce.

Number of persons engaged in manufactures.

## Slaves:

## Males:

- Under 14.
- Of 14 and under 26.
- Of 26 and under 45.
- Of 45 and upwards.

## Females:

- Under 14.
- Of 14 and under 26.
- Of 26 and under 45.
- Of 45 and upwards.

## Free colored persons:

## Males:

- Under 14 years.
- Of 14 and under 26.
- Of 26 and under 45.
- Of 45 and upwards.

## Females:

- Under 14 years.
- Of 14 and under 26.
- Of 26 and under 45.
- Of 45 and upwards.

All other persons, except Indians not taxed.

## INSTRUCTIONS TO MARSHALS—CENSUS OF 1820. (a)

*To the Marshal of the District of ———*

DEPARTMENT OF STATE, Washington, June 20, 1820.

SIR: The "Act to provide for taking the fourth census or enumeration of the inhabitants of the United States, and for other purposes," copies of which are herewith inclosed, prescribes that this enumeration shall be taken, under the direction of the Secretary of State, and according to such instructions as he shall give, pursuant to the act; in obedience to the injunctions of which the following regulations and instructions are now transmitted to you, together with the forms of the schedule to be returned, and such others as may be necessary in carrying the act into execution, and proper interrogatories to be administered by the several persons to be employed in taking the enumeration.

The purposes of the legislature in this act, subsidiary to that of obtaining the aggregate amount of the population of the United States, are, to ascertain in detail the proportional numbers of which it is composed, according to the circumstances of sex, color, age, condition of life, as heads or members of families, as free or slaves, as citizens or foreigners, and particularly of the classes (including slaves) engaged in agriculture, commerce, and manufactures. And, also, to obtain an account of the manufacturing establishments, and their manufactures, throughout the United States.

The means provided by the legislature, in the act, for the attainment of these purposes, consist in the appointment of the marshals of the several districts, and of such assistants as they may select, for the accomplishment of the returns within the period prescribed by the law.

The importance of the duties assigned to these officers by the act, in the estimation of the legislature, is sufficiently indicated by the provisions, that every marshal and every assistant shall, before he enters on the duties required by the act, take an oath or affirmation for the faithful performance of them. And that after this performance, every assistant shall take a second oath, or affirmation, that he has faithfully performed these duties in the manner prescribed by the act. Blank forms of

these oaths, numbered 2, 3, and 4, are herewith transmitted to you, in numbers sufficient to supply yourself and your assistants; and, for the sake of uniformity, the form of a certificate, to be subscribed by the magistrate who may administer the oath, is subjoined to it. For the security of the public, it is necessary that the evidence showing that these oaths have been taken, should be preserved. It is therefore recommended, that you should transmit to this department one copy of the certificate that you have, yourself, taken the oath required of the marshal; that you should require of all your assistants to deliver or transmit to you the certificates of their oaths, taken both before and after their returns, and that you should return them to this department, as they will be vouchers necessary for the settlement of your account.

It has already been suggested to you, and could not have escaped your observation, upon perusal of the act, that much will depend for its execution in a manner which may correspond with the just expectations of the legislature, upon the judicious selection of your assistants. The duties to be performed by them, under the solemnities of an oath, both before and after their discharge, are such as will require assiduous industry, active intelligence, pure integrity, great facility and accuracy of computation; with an intimate knowledge of the division allotted to them respectively, and a faculty of discernment between the different classes of persons discriminated by the act, which will enable them readily to distinguish to which of the enumerated conditions of society each individual may, with the greatest propriety, be assigned. They must, by the letter of the act, be *residents* of the county or city for which they shall be appointed, and each division, though it may include one or more *towns*, *townships*, *wards*, *hundreds*, or *parishes*, plainly and distinctly bounded by water courses, mountains, public roads, or other monuments, must not consist of more than one county or city. The subdivisions of territory are known in different States by different denominations, and the same term of town, county, city, and parish, has a different idea annexed to it in the different parts of the Union. Hence it is that the act points to divisions bounded by water courses, mountains, public roads, or other monuments, to which you will duly attend, with reference to the particular territorial denominations known in your State, and with suitable precautions to avoid the assignment of the same portion of the population to more than one assistant, and the inconvenience that any two of them should interfere with each other.

A form of schedule (No. 1), such as is prescribed by the act, is likewise inclosed. Your assistants will observe that the act expressly requires the enumeration to be made by an actual inquiry, at every dwelling house, or of the head of every family, *and not otherwise*, and that the oath or affirmation, to be taken by them, after their performance of the duty, and before they can receive compensation for the same, declares, expressly, that they have ascertained the numbers, *by such actual inquiry*.

The act requires that the enumeration should commence on the first Monday of August next, and should close within six calendar months thereafter. From the number and extent of the inquiries to be made at every house, embracing many particulars, not required at any former census of the United States, it is obvious that the progress to be made by each assistant will be necessarily slow; and as it is extremely desirable that the enumeration should be completed within the time prescribed, you will perceive the necessity of appointing a number of assistants adequate to that result, as each assistant will be duly impressed with that of not losing a day in the performance of his task. And, I beg leave to suggest, as advisable, proper precautions, to meet the contingency that any of your assistants should be disabled by illness, or otherwise, from accomplishing his duties, and to supply immediately the places of such as may be vacated by death, or other casualty.

The interrogatories to be put at each dwelling house, or to the head of every family, are definitely marked in relation to the various classes of inhabitants discriminated in the several columns of the schedule, by the titles at the head of each column. That of the *name* of the head of each family, must indeed be varied according to its circumstances, as it may be that of a master, mistress, steward, overseer, or other principal person therein. The subsequent inquiries, How many free white males under 10 years there are in the family? How many of 10 and under 16? etc., will follow in the order of the columns. But, to facilitate the labor of your assistants, a printed list of all the interrogatories for enumeration, believed to be necessary, is inclosed; (No. 5) in which all the questions refer to the day when the enumeration is to commence; the first Monday in August next. Your assistants will thereby understand that they are to insert in their returns all the persons belonging to the family on the first Monday in August, even those who may be deceased at the time when they take the account; and, on the other hand, that they will not include in it, infants born after that day. This, though not prescribed in express terms by the act,

is the undoubted intention of the legislature, as manifested by the clause providing that every person shall be recorded as of the family in which he or she shall reside on the first Monday in August.

It will be necessary to remember, that the numbers in the columns of free white males between 16 and 18—foreigners not naturalized—persons engaged in agriculture—persons engaged in commerce—persons engaged in manufactures—must not be added to the general aggregates, of which the sum total is to be opposed. All the persons included within these columns must necessarily be included also in one of the other columns. Those, for instance, between 16 and 18, will all be repeated in the column of those between 16 and 26. The foreigners not naturalized, and those engaged in the three principal walks of life, will also be included in the columns embracing their respective ages. In the printed form of a schedule herewith inclosed, the description at the top of these columns is printed in *italics*, and the division lines between the columns themselves are double ruled, with a view to distinguish them from the other columns, the sums of which are to go to the general aggregate. In preparing their schedules from this form, your assistants will find it useful, for convenience and accuracy, to distinguish those columns, by ruling them with red ink, or in some other manner, which may keep them separate from the others, by a sensible impression constantly operating upon the mind.

The discrimination between persons engaged in agriculture, commerce, and manufactures, will not be without its difficulties. No inconsiderable portion of the population will probably be found, the individuals of which being asked, to which of those classes they belong, will answer, to all three. Yet, it is obviously not the intention of the legislature that any one individual should be included in more than one of them—of those whose occupations are exclusively agricultural or commercial, there can seldom arise a question, and in the column of manufactures will be included not only all the persons employed in what the act more specifically denominates manufacturing establishments, but all those artificers, handicraftsmen, and mechanics, whose labor is preeminently of the hand, and not upon the field.

By persons engaged in agriculture, commerce, or manufactures, your assistants will understand that they are to insert in those columns, not whole families, including infants and superannuated persons, but only those thus engaged by actual occupation. This construction is given to the act, because it is believed to be best adapted to fulfill the intentions of the legislature, and because, being susceptible of the other, it might be differently construed by different persons employed in the enumeration, and thus destroy the uniformity of returns, essential to a satisfactory result.

Besides this enumeration of manufactures, the marshals and their assistants are required, by the tenth section of the act to take an account of the several *manufacturing establishments and their manufactures*, within their several districts, territories, and divisions; and the meaning of the legislature, by this provision, is illustrated by the clause in the oaths of the marshals and assistants, that they will take an account of the manufactures, *except household manufactures*, from which it seems fairly deducible, that, in the intention of the legislature, persons employed only upon household manufactures are not to be included in the column of persons bearing that denomination, the occupation of manufacturing being, in such cases, only incidental, and not the profession properly marking the class of society to which such individual belongs.

This, then, offers a criterion by which your assistants may select the column of occupation to which each individual may be set down; namely, to that which is the principal and not the occasional, or incidental, occupation of his life.

The more particular the account of manufactures can be made, the more satisfactory will the returns prove. Among the papers inclosed is an alphabetical list of manufactures (No. 6), which may facilitate the labor of your assistants, but which they will not consider as complete. It is intended merely to give a direction to their inquiries, and each of them will add to it every manufacture not included in it and of which he takes an account within his division. A printed form (No. 7) is likewise inclosed, of inquiries to be made in relation to manufacturing establishments, on a sheet of paper, upon which the information requested may be written and returned. In every case when it can be conveniently done, your assistant will do well to give this form to some person principally concerned in the manufacturing establishment, requesting him to give the information desired himself.

The execution of the fifth section of the act requires the further interrogatories, whether any person, whose usual abode was in the family on the first Monday of August, 1820, be absent therefrom at the time of the inquiry made: and, if so, the sex, age, color, and condition, of such person are to be asked, and marked in the proper column, in the return of the family. It follows, of course, that any person

who, at the time of taking the number of any family, has his usual abode in it, is, nevertheless, not to be included in the return of that family, if his usual place of abode was, on the first Monday of August, in another family. The name of every person having no settled place of residence, is to be inserted in the column of the schedule allotted for the heads of families in the division where such person shall be on the first Monday of August.

Your assistants will be careful to observe, however, an important distinction between the inquiries directly necessary to the enumeration, and those relating to manufactures; they will see, that, by the sixth section of the act, each and every *free* person, more than 16 years of age, whether heads of families or not, belonging to any family within any division, district, or territory, is *obliged* to render the assistant of the division, if required, a true account, to the best of his or her knowledge, of every *person* belonging to such family respectively, according to the several descriptions in the schedule, upon a penalty of \$20; but, as the act lays no positive injunction upon any individual to furnish information upon the situation of his property, or his private concerns, the answers to all inquiries of that character must be altogether voluntary, and every one, to whom they are put or addressed, will be at liberty to decline answering them at all. This has been a principal motive for putting the inquiries pointed to the two kinds of information to be required, into separate and distinct forms. It is to be expected that some individuals will feel reluctant to give all the information desired in relation to manufactures; but, as the views of Congress in directing the collection of this information, were undoubtedly views of kindness toward the manufacturing interest in general, it is hoped, that the general sentiment among the persons included in that highly important class of our population will incline them to give all the information relating to their condition, which may enable the legislature hereafter to promote their interests by measures conciliating with them those of the other great and leading classes of society.

By the seventh section of the act, every assistant, before making his return to you, is required to cause a correct copy, signed by himself, of the schedule containing the number of inhabitants within his division, to be set up at two of the most public places within the same, there to *remain* for the inspection of all concerned; proof of which is to be transmitted to you by each of your assistants, with the return of the number of persons—upon failure of which the assistant will forfeit the compensation allowed him by the act. The time during which the copy of the schedule must thus *remain* set up is not specified; but must be presumed a reasonable time for the purposes obviously intended by this provision, namely, for the detection of errors which may have happened in the names of the heads of families and numbers of persons to be returned; a time within which all the inhabitants recorded in the schedule may have had a sufficient opportunity for the inspection thus offered them, and to point out the errors in it, to be corrected. A form of a certificate, to be signed by two respectable witnesses, and annexed to the schedule No. 1, is inclosed, as a convenient mode of furnishing the proof required by the act.

The *returns of enumeration*, when received from all your assistants, are to be filed by you, together with an attested copy of the aggregate amount, to be made out by yourself, with the clerk of your district (or superior) court, who are directed to receive and carefully preserve them. And on or before the 1st day of April next, you are to transmit to this Department the aggregate amount of *each description of persons* within your district (or territory): by which is to be understood, not merely the general aggregate amount of your whole district, but also the special aggregate of every subdivision, of counties, towns, townships, cities, boroughs, and parishes, and, in the principal cities, of their several wards.

The *return of manufactures* collected by yourself, and those made to you by your assistants, you are to transmit, together with abstracts of the same, to this Department, at the same time with the aggregate of the enumeration. The form of an abstract, corresponding with the questions on the blank sheet (No. 7) from the answers to which it is to be compiled, is herewith transmitted and numbered (9).

With the forms of return is inclosed that of the aggregates to be compiled by you (No. 8) from all the returns, and a specimen of the manner in which they may be most conveniently filled up by each of your assistants. By taking a quire of common paper, or as many sheets as his enumeration will require, and stitching them through at a proper fold, as a book, and prefixing the form of his return, to project beyond the edges of his book, he will always have under his eye the necessary guide to the proper columns in which entries are to be made, without being obliged to repeat the heading at the top of each sheet. Under the heading of each column, ciphered figures are also printed, denoting the different classes of persons, which, at a glance of the eye, will point to the column in which each entry is to be made.

For the purpose of uniformity in the mode of rendering the accounts of compensation for taking the census or enumeration of inhabitants, the following instructions on that point are added:

1. No payments will be made in advance from the Treasury for this object. On the rendering of the accounts by the marshals, the payments will be made at the Treasury; and the payment will be made, for the whole amount of compensation in each district or territory, to the marshal thereof. The assistants are to be apprised, that it is the marshal alone to whom they are to apply for their compensations.

2. As soon as the marshal has received the returns of all his assistants, he is to make out an abstract of their compensation in the form annexed (No. 10), adding at foot the amount of his own compensation, as fixed by the act of 14th of March, 1820.

3. If any of the assistants are allowed more than at the rate of \$1 for every hundred persons enumerated, there must be annexed to the abstract the certificate of the district or territorial judge, approving such additional allowance.

4. The account of compensation is to be transmitted to this Department, at the same time with the returns of the census.

The column of compensation for taking account of manufactures must be left in blank; and the allowance will be a percentage, not exceeding 20 per cent on the amount allowed for the other services required by the act. This apportionment being subject to the direction of the Secretary of State, you will state in the column the amount of your claim for it; and if extending to, or approaching, the whole allowance within the limits of the act, you will assign the reasons upon which it may be allowed, by a justifiable exercise of the discretion authorized by the law.

Should any difficulty or obstacle occur to any of your assistants, in performing the duty assigned to him, it is expected that he will give you immediate notice of it, that you may take measures for removing it, if within your power. Should any such occur to yourself, for which it may be within the competency of this Department to provide a remedy, you are requested to give immediate communication of it, to me.

A number, believed to be competent, of copies of the act, of these instructions, and of the forms referred to in them, numbered as noted, is herewith furnished for the supply of yourself and your assistants, to whom they are supposed to be necessary. Should more be required, you will receive them, on giving notice of it by letter to this Department. You are requested, as soon as convenient, after the receipt of this letter, to acknowledge it.

I have the honor to be, with great respect, sir, your humble and obedient servant,

JOHN QUINCY ADAMS.

#### LIST OF PAPERS INCLOSED.

Copies of the act for taking the fourth census or enumeration.

Copies of these instructions.

Forms: (a)

1. Schedule of enumeration to be used by the assistants, and returned to the marshal, on or before the first Monday in February, 1821.
2. Oath or affirmation of the marshal, to be returned (certified by a judge or justice of the peace, resident within the district) to the Department of State.
3. Oath of the assistant, to be taken before entering on the duties required by the act, and by him returned, certified as aforesaid, to the marshal, and by the marshal to the Department of State.
4. Oath of the assistant, to be taken after completing his return, and transmitted with it certified as aforesaid, to the marshal, and by him to the Department of State.
5. Interrogatories of enumeration, to be used by the assistants.
6. Alphabetical list of manufactures, to be used by the assistants.
7. Questions concerning manufactures, to be answered on the same sheet; one to be used for each manufacturing establishment, and returned, with the answers, to the marshal, and by him to the Department of State.
8. Aggregate of enumeration, to be compiled by the marshal from the schedules returned by the assistants, and transmitted to the Department of State.
9. Abstract of manufactures, to be made by the marshal from the returns of the assistants, and transmitted with them to the Department of State.
10. Account of compensation, to be transmitted with the returns of the census by the marshal to the Department of State.

CENSUS OF 1830.

SCHEDULE of the whole number of Persons within the Division allotted to ..... by  
the Marshal of the .. District or Territory) of .....

Name of county, city, ward, town, township, parish, precinct, hundred, or district.

Names of heads of families.

Free white persons (including heads of families):

Males:

Under 5 years of age.  
Of 5 and under 10.  
Of 10 and under 15.  
Of 15 and under 20.  
Of 20 and under 30.  
Of 30 and under 40.  
Of 40 and under 50.  
Of 50 and under 60.  
Of 60 and under 70.  
Of 70 and under 80.  
Of 80 and under 90.  
Of 90 and under 100.  
Of 100 and upwards.

Females:

Under 5 years of age.  
Of 5 and under 10.  
Of 10 and under 15.  
Of 15 and under 20.  
Of 20 and under 30.  
Of 30 and under 40.  
Of 40 and under 50.  
Of 50 and under 60.  
Of 60 and under 70.  
Of 70 and under 80.  
Of 80 and under 90.  
Of 90 and under 100.  
Of 100 and upwards.

Slaves:

Males:

Under 10 years of age.  
Of 10 and under 24.  
Of 24 and under 36.  
Of 36 and under 55.  
Of 55 and under 100.  
Of 100 and upwards.

Females:

Under 10 years of age.  
Of 10 and under 24.  
Of 24 and under 36.  
Of 36 and under 55.  
Of 55 and under 100.  
Of 100 and upwards.

Free colored persons:

Males:

Under 10 years of age.  
Of 10 and under 24.  
Of 24 and under 36.  
Of 36 and under 55.  
Of 55 and under 100.  
Of 100 and upwards.

Females:

Under 10 years of age.  
Of 10 and under 24.  
Of 24 and under 36.  
Of 36 and under 55.  
Of 55 and under 100.  
Of 100 and upwards.

**Total:**

- White persons included in the foregoing:
  - Who are deaf and dumb, under 14 years of age.
  - Who are deaf and dumb, of the age of 14 and under 25.
  - Who are deaf and dumb, of the age of 25 and upwards.
  - Who are blind.
- Aliens—foreigners not naturalized.
- Slaves and colored persons included in the foregoing:
  - Who are deaf and dumb, under 14 years of age.
  - Who are deaf and dumb, of the age of 14 and under 25.
  - Who are deaf and dumb, of the age of 25 and upwards.
  - Who are blind.

## INSTRUCTIONS TO MARSHALS—CENSUS OF 1830. (a)

DEPARTMENT OF STATE, *Washington, March 24, 1830.**To the Marshal of the United States for the District of .....*

SIR: I herewith inclose a copy of "An act to provide for taking the fifth census, or enumeration of the inhabitants of the United States."

The instructions and regulations to be given in pursuance of this act, will be prepared as soon as possible, and transmitted to you, together with blank forms and interrogatories, and a sufficient number of those blanks for the use of the whole number of deputies in your district. This course is adopted, to produce a uniformity in all the official returns under the act referred to.

In the meantime, to avoid any unnecessary delay, and as the enumeration is to commence on the first day of June next, you will please make a selection of your assistants as soon as possible, and transmit to this Department a list of their names, and of the districts or divisions assigned to each.

On the perusal of the act, you will see the necessity of your selecting persons of ability and integrity, and possessing the additional qualification of diligent and industrious habits, and particularly those competent in accounts.

In order that I may form some estimate of the probable number of blanks that will be required in your district, be pleased to note on the list of assistants, the probable number of inhabitants in each assistant's division.

I will thank you to acknowledge this circular immediately, and to direct your answer to this, as well as all communications relating to the census, as follows:

"Department of State, Washington City, D. C.—Census."

And if it be practicable, it would conduce to the convenience of this Department, that your letters should be written upon paper of the dimensions of this sheet.

I am, sir, respectfully, your obedient servant,

M. VAN BUREN.

DEPARTMENT OF STATE, *Washington, April 15, 1830.**To the Marshal of the United States for the District of .....*

SIR: The "Act to provide for taking the fifth census, or enumeration of the inhabitants of the United States," copies of which are herewith transmitted, prescribes, that this enumeration shall be taken under the direction of the Secretary of State, and according to such instructions as he shall give, pursuant to the act. In obedience to the injunctions therein contained, the following instructions are now transmitted to you.

The means provided by the legislature, in the act, for the attainment of the objects enumerated, are in the appointment of the marshals of the several districts, and of such assistants as they may select, for the accomplishment of the returns within the period prescribed by law.

The importance of the duties assigned to these officers, by the act, is sufficiently indicated by the provisions, that every marshal and every assistant, shall, before he enters on the duties required by the act, take an oath or affirmation for the faithful performance of them; and that, after this performance, every assistant shall take a second oath, or affirmation, that he has faithfully performed these duties in the manner prescribed by the act. Blank forms of these oaths, numbered 1, 2, and 7, are

herewith transmitted to you, in numbers sufficient to supply yourself and your assistants, and, for the sake of uniformity, the form of a certificate, to be subscribed by the magistrate who may administer the oath, is subjoined to it. It is directed that you transmit to this Department one copy of the certificate that you have, yourself, taken the oath required of the marshal; that you should require of all your assistants to deliver, or transmit to you, the certificates of their oaths, taken both before and after their returns, and that you return them to this Department, as they will be vouchers necessary for the settlement of your account. Each *set* of oaths (or affirmations) to be immediately transmitted to the Department on receipt by the marshal.

The duties to be performed by your assistants, under the solemnities of an oath, are such as will require arduous industry, active intelligence, pure integrity, great facility and accuracy of computation, and an intimate knowledge of the division allotted to them respectively. They must, by the letter of the act, be *residents* of the county or city for which they shall be appointed, and each division may include one or more towns, townships, wards, hundreds, precincts, or parishes, which must be plainly and distinctly bounded; but a division must, in no case, exceed one county. You will also use all suitable precautions, to avoid the assignment of the same portion of the population, to more than one assistant, and the inconvenience that any two of them should interfere with each other.

Your assistants will observe, that the act expressly requires the enumeration to be made by an actual inquiry at every dwelling house, or by personal inquiry of the head of every family, *and not otherwise*; and that the oath or affirmation to be taken by them, after the performance of this duty, and before they can receive compensation for the same, declares, expressly, that they have ascertained the numbers *by such actual inquiry*.

The act requires that the enumeration shall commence on the 1st day of June next, and shall close within six calendar months thereafter, and that the said assistant shall, on or before the 1st day of December, 1830, deliver to the marshals by whom they shall have been appointed, respectively, two copies of the accurate returns of all persons (except Indians not taxed) enumerated as aforesaid, within their respective divisions. From the number of inquiries to be made at every house, it is obvious that the progress to be made by each assistant will be necessarily slow; and as it is required that the enumeration shall be completed within the time prescribed, you will perceive the necessity of appointing a number of assistants adequate to that result, and each assistant must be enjoined not to lose a day in the performance of his task. And I beg leave to suggest, as advisable, proper precautions to meet the contingency of any of your assistants being disabled by sickness, or otherwise, from accomplishing his duties, and to supply, immediately, the places of such as may be vacated by death, or other casualty.

To facilitate the labor of your assistants, a printed list of all the interrogatories for enumeration is inclosed (No. 3), in which all the questions refer to the day when the enumeration is to commence—the 1st day of next June. Your assistants will also bear in mind to include all persons of a family (except Indians not taxed) who were members thereof on the 1st day of June, 1830, whether present or not, and not to include any person whose usual abode was not in the family they are enumerating on the said 1st day of June. They will, of course, include such persons as may have deceased after that day, and will not include in it infants born after that day. This, though not prescribed in express terms by the act, is the undoubted intention of the legislature, as manifested by the clause, providing that every person shall be recorded as of the family in which he or she shall reside on the 1st day of June, 1830.

The execution of the fifth section of the act requires the further interrogatories, whether any person, whose usual abode was in the family on the 1st day of June, 1830, be absent therefrom at the time of making the inquiry, and if so, the sex, age, color, and condition, are to be asked and marked in the proper column, in the return of the family. It follows, of course, that any person, who, at the time of taking the enumeration of any family, has his abode in it, is, nevertheless, not to be included in the return of that family, *if his usual place of abode, was, on the 1st day of June, in another family*. The name of every person, having no settled place of residence, is to be inserted in the column of the schedule, allotted for the heads of families, in the division where such person shall be on the 1st day of June, and, of course, also in one of the other columns, according to the age and condition of such person.

Your assistant will see, that, by the sixth section of the act, each and every *free* person, more than 16 years of age, whether heads of families or not, belonging to any family, within any division, district, or territory, is *obliged* to render the assistant of

the division, if required, a true account, to the best of his or her knowledge, of every person belonging to such family respectively, according to the several descriptions in the schedule, under a penalty of \$20. They should, therefore, read that section to the person of whom they make the inquiry, whenever it may be found necessary.

By the seventh section of the act, every assistant, before making his return to you, is required to cause correct copies, signed by himself, of the schedule containing the number of inhabitants within his division, to be set up at two of the most public places within the same, for the inspection of all concerned; proof of which is to be transmitted to you by each of your assistants, and by you to the Department, with the return of the number of persons, upon failure of which, the assistant will forfeit the compensation allowed him by the act. A form of the certificate, to be written on the copy of the schedule No. 4, which is to be transmitted to the Department, signed by two respectable witnesses, is inclosed, as a convenient mode of furnishing the proof required by the act.

One copy of the returns of enumeration, when received from all your assistants, is to be filed by you, together with an attested copy of the aggregate amount, to be made out by yourself, with the clerk of your district (or superior) court, who is directed to receive, and carefully preserve them; and, on or before the 1st day of February, 1831, you are to transmit to this Department, one copy of the several returns received from each assistant, signed by each assistant respectively, and, also, by two respectable witnesses, that the same has been posted; and, also, one copy of the aggregate amount of each description of persons within your district: by which it is to be understood, not merely the general aggregate amount of your whole district, but also the special aggregate of every subdivision of counties, cities, towns, townships, parishes, precincts, hundreds, and districts, and the several wards in the principal cities.

For the purpose of uniformity in the mode of rendering accounts of compensation for taking the census, or enumeration of inhabitants, the following instructions on that point are added:

1. No payments will be made in advance for this object. Payment will be made, for the whole amount of compensation in each district, to the marshal thereof. The assistants are to be apprised that they are to apply to the marshal alone for their compensation.

2. As soon as the marshal has received the returns of all his assistants, he is to make out an abstract of their compensation, as in form No. 9, adding, at foot, the amount of his own compensation, as fixed by the act of 23d March, 1830.

3. If any of the assistants are allowed more than at the rate of \$1.25 for every 100 persons enumerated, there must be annexed, to the abstract of the account, the certificate of the district or territorial judge of the United States approving such additional allowance.

4. The account of compensation is to be transmitted to this department, at the same time with the returns of the census.

5. The act provides for the payment to the marshals, of the amount of postage by them respectively paid, on letters relating to their duties under this act. The charges under this head must be accompanied with the receipt of the postmaster, to whom such postage has been paid.

Should any difficulty or obstacle occur to any of your assistants, in performing the duty assigned to him, it is directed that he give you immediate notice thereof, that you may take measures for removing it, if within your power. Should any such occur to yourself, you are requested to make immediate communication of it to me. A number, believed to be sufficient, of the copies of the act—of these instructions—and of the forms referred to in them (with the exception of Nos. 4, 8, and 9) is herewith transmitted, for the supply of yourself and assistants. Should more be required, you will receive them on giving notice to this department.

The forms Nos. 4, and 8, in sufficient numbers for the enumeration of the whole of your district, and also a copy of No. 9, will be forwarded by subsequent mails, as soon as they are prepared. You are requested to acknowledge this package immediately on receipt.

I am, sir, respectfully your obedient servant,

M. VAN BUREN.

## LIST OF PAPERS INCLOSED.

Copies of the act for taking the fifth census, or enumeration of the inhabitants of the United States.

Copies of these instructions.

Blank forms: (a)

1. Oath or affirmation of the marshal, to be returned to the Department of State.
2. Oath or affirmation of the assistant, to be taken before entering on the duties required by the act, and by him returned to the marshal, and by the marshal to the Department of State.
3. Interrogatories to be used by the assistants.
5. Copy of a certificate of the assistant, to be written at the foot of schedule No. 4.
6. Copy of a certificate of two respectable inhabitants of the division, to be written at the foot of the schedule when returned by the assistant to the marshal.
7. Oath or affirmation of the assistant, to be taken after completing his return, and transmitted with it to the marshal, and by him to the Department of State.

## TO BE HEREAFTER TRANSMITTED.

4. Schedule of enumeration to be used by the assistants, and returned to the marshal on or before the 1st day of December, 1830.
8. Aggregate of enumeration to be compiled by the marshal from the schedules returned by the assistants.
9. Account of compensation, to be transmitted with the returns of the census, by the marshal, to the Department of State.

## CENSUS OF 1840.

SCHEDULE of the whole number of Persons within the Division allotted to ..... by the Marshal of the ..... District (or Territory) of .....

Name of county, city, ward, town, township, parish, precinct, hundred, or district.

Names of heads of families.

Free white persons, including heads of families:

Males:

- Under 5 years of age.
- Of 5 and under 10.
- Of 10 and under 15.
- Of 15 and under 20.
- Of 20 and under 30.
- Of 30 and under 40.
- Of 40 and under 50.
- Of 50 and under 60.
- Of 60 and under 70.
- Of 70 and under 80.
- Of 80 and under 90.
- Of 90 and under 100.
- Of 100 and upwards.

Females:

- Under 5 years of age.
- Of 5 and under 10.
- Of 10 and under 15.
- Of 15 and under 20.
- Of 20 and under 30.
- Of 30 and under 40.
- Of 40 and under 50.
- Of 50 and under 60.
- Of 60 and under 70.
- Of 70 and under 80.
- Of 80 and under 90.
- Of 90 and under 100.
- Of 100 and upwards.

**Free colored persons :**

**Males:**

Under 10 years of age.  
Of 10 and under 24.  
Of 24 and under 36.  
Of 36 and under 55.  
Of 55 and under 100.  
Of 100 and upwards.

**Females:**

Under 10 years of age.  
Of 10 and under 24.  
Of 24 and under 36.  
Of 36 and under 55.  
Of 55 and under 100.  
Of 100 and upwards.

**Slaves:**

**Males:**

Under 10 years of age.  
Of 10 and under 24.  
Of 24 and under 36.  
Of 36 and under 55.  
Of 55 and under 100.  
Of 100 and upwards.

**Females:**

Under 10 years of age.  
Of 10 and under 24.  
Of 24 and under 36.  
Of 36 and under 55.  
Of 55 and under 100.  
Of 100 and upwards.

**Total.**

**Number of persons in each family employed in:**

Mining.  
Agriculture.  
Commerce.  
Manufactures and trades.  
Navigation of the ocean.  
Navigation of canals, lakes, and rivers.  
Learned professions and engineers.

**Pensioners for Revolutionary or military services, included in the foregoing:**

**Names.**

**Ages.**

**Deaf and dumb, blind, and insane white persons, included in the foregoing:**

**Deaf and dumb:**

Under 14 years of age.  
Of the age of 14 and under 25.  
25 and upwards.

**Blind and insane:**

Blind.  
Insane and idiots at public charge.  
Insane and idiots at private charge.

**Deaf, dumb, blind, and insane colored persons, included in the foregoing:**

**Deaf, dumb, and blind:**

Deaf and dumb.  
Blind.

**Insane and idiots:**

Insane and idiots at private charge.  
Insane and idiots at public charge.

**Schools, etc.:**

Universities or colleges.  
Number of students.  
Academies and grammar schools.  
Number of scholars.  
Primary and common schools.  
Number of scholars.  
Number of scholars at public charge.

Number of white persons over 20 years of age in each family who can not read and write.

## INSTRUCTIONS TO MARSHALS, ETC.—CENSUS OF 1840. (a)

SIR: I herewith inclose a copy of "An act to provide for taking the sixth census or enumeration of the inhabitants of the United States."

You will perceive a discrepancy in the dates named in the law for the commencing and completing the census; until further legislation, the Department will construe the law to ordain, that the taking of the census or enumeration shall commence on the 1st day of June, 1840, and that it shall be completed and closed within ten calendar months thereafter (viz. April 1, 1841), and as nine months are given to the deputy marshals to make their returns to the marshals, the nine months will be held to terminate March 1, 1841.

The instructions and regulations to be given in pursuance of this act will be prepared in due season, and transmitted to you, together with blank forms and interrogatories, and a sufficient number of those blanks for the use of the whole number of deputies in your district. This course is adopted to produce a uniformity in all the official returns under the act referred to.

In the meantime, as the enumeration is to commence on the 1st day of June, 1840, you will please make a selection of your assistants and transmit to this Department a list of their names, and of the districts or divisions assigned to each.

On the perusal of the act, you will see the strong necessity of your selecting persons of ability and integrity, and possessing the additional qualification of diligent and industrious habits, skilled in accounts, and in all cases a thorough knowledge and acquaintance with the district assigned them.

In order that I may form some estimate of the probable number of blanks that will be required in your district, be pleased to note, on your list of assistants, the probable number of inhabitants in each assistant's division.

I will thank you to acknowledge this circular immediately, and to direct your answer to this, as well as all communications relating to the census, as follows:

"Department of State, *Washington City, D. C.*—Census."

And if it be practicable, it would conduce to the convenience of this Department that your letters should be written upon paper of the dimensions of this sheet.

SIR: I herewith inclose to you ..... copies of the interrogatories (No. 3).

An additional number of the above-mentioned form has been printed and distributed, in order to disseminate a more general knowledge of the subject among the people, and to facilitate the attaining the objects of the law by the assistants. Copies are forwarded to you to the extent of ..... for each assistant, with the request that they be given every possible publicity, unattended with expense.

On referring to the thirteenth section of the act, you will perceive the strong necessity for acquainting the people in advance with the nature of the inquiries to be made of them, and to give them time for preparation to answer the questions promptly. The act requires (in that section) the marshals and their assistants "to collect and return (in statistical tables, under proper heads, according to such forms as shall be furnished) all such information in relation to mines, agriculture, commerce, manufactures, and schools, as will exhibit a *full view* of the pursuits, industry, education, and resources of the country." All the questions which are to be asked upon those subjects are contained in No. 3. If they be made known and generally understood before the enumeration commences, the answers to the interrogatories will be prepared in time for the domiciliary visit of the assistant, and the responses promptly made.

In taking down the answers under the general heads in the statistical tables (No. 10), great caution will be required in all cases of copartnership to avoid multiplying returns from the different partners in manufactories, commercial houses, and companies of every description. The assistant, in propounding the interrogatories, must inform himself of the fact whether the individual interrogated is sole owner or is a partner only of a company. In the latter case, one individual of the firm or company must answer for the whole.

It will be expected of the assistants in carrying into effect this portion of the act, that in its full and exact meaning the returns will exhibit a *full view* of the pursuits, industry, education, and resources of the country. The inquiries must be carried home to every man; and it will require the utmost diligence to accomplish the object in the given period of time. When the importance of the subject is considered, and

that no meager returns can be acceptable to the Government or the country, an assurance is felt by this Department that the duties will be faithfully performed.

An additional compensation to the assistants has been recommended to Congress by the Secretary of State, for the performance of this duty.

Objections, it has been suggested, may possibly arise on the part of some persons to give the statistical information required by the act, upon the ground of disinclination to expose their private affairs. Such, however, is not the intent, nor can be the effect, of answering ingenuously the interrogatories. On the statistical tables no name is inserted—the figures stand opposite no man's name; and therefore the objection can not apply. It is, moreover, inculcated upon the assistant that he consider all communications made to him in the performance of this duty, relative to the business of the people, as strictly confidential.

---

SIR: The "act to provide for taking the sixth census or enumeration of the inhabitants of the United States," copies of which have been transmitted to you, prescribes that this census shall be taken under the direction of the Secretary of State, and according to such instructions as he shall give pursuant to the act. The following instructions are now, therefore, transmitted to you, and your careful attention to them required. To attain the objects in view, the legislature has directed the employment of the marshals of the several districts, and of such assistants as they may select, for the completion of the returns within the period prescribed by law.

The importance of the duties assigned to these officers is sufficiently indicated by the provisions of the act that every marshal and every assistant shall, before he enters upon them, take an oath or affirmation that he will faithfully perform them in the manner therein prescribed. Blank forms of these oaths, numbered 1, 2, and 7, have been transmitted to you in number sufficient to supply yourself and your assistants. Each set of oaths (or affirmations), after having been sworn to and duly authenticated, will be immediately returned to this Department on their receipt by the marshal.

The duties to be performed by your assistants, under the solemnity of an oath, are such as will require industry, intelligence, integrity, a facility and accuracy of computation, with an intimate knowledge of the division allotted to them respectively. They must, by the letter of the act, be *residents* of the county or city for which they shall be appointed, and each division may include one or more towns, townships, wards, hundreds, precincts, or parishes, which must be plainly and distinctly bounded; but a division must in no case exceed one county. You will carefully avoid the assignment of the same portion of the population to more than one assistant. Great inconvenience will be produced if there should be any interference by the assistants with each other.

Your assistants will observe that the act expressly requires the enumeration to be made by an actual inquiry at every *dwelling house*, or by *personal inquiry of the head of every family*, and *not otherwise*; and that the oath or affirmation, to be taken by them after the performance of this duty, and before they can receive compensation for the same, declares expressly that they have ascertained the numbers by *such actual inquiry*. The act requires that "the enumerations shall commence on the 1st day of June next, and close within ten calendar months thereafter; \* \* \* and that the assistants shall, within nine months, or on or before the 1st day of October, 1840, deliver to the marshals, by whom they shall be appointed, respectively, two copies of the accurate returns of all persons, except Indians not taxed, to be enumerated as aforesaid, within their respective divisions." From the number of inquiries to be made at each house, it is obvious that the progress to be made by each assistant will be necessarily slow; and as there is a doubt, from the phraseology of the law, whether Congress did not intend that the enumeration should be completed by the 1st day of October, 1840, you will perceive the necessity of appointing a number of assistants adequate to effect that result, if the next Congress shall so determine. Each assistant must be enjoined not to lose a day in the performance of his task. I suggest, as advisable, proper precautions to meet the contingency of any of your assistants being disabled by sickness or otherwise from fulfilling his duties, and to supply immediately all places that may be vacated by any casualty.

To facilitate the labor of your assistants, a printed list of all the interrogatories for the enumeration of the people, and also for the information required relative to mines, agriculture, commerce, manufactures, and schools, by the thirteenth section of the act, has been prepared and numbered 3 (No. 3), in which all the questions

touching the enumeration (the answers to which are to be set down on schedule No. 4) refer to the 1st day of June, 1840, the day on which the enumeration is to commence. Your assistants will also bear in mind to include all persons of a family (except Indians not taxed) who were members thereof on the 1st day of June, whether present or not, and not include any person whose usual abode was not in the family they are enumerating on the said 1st day of June, 1840. They will, of course, include such persons as may have died after that day, and will not include in it infants born after that day. This, though not prescribed in express terms by the act, is the undoubted intention of the legislature, as manifested by the clause providing that every person shall be recorded as of the family in which he or she shall reside on the 1st day of June, 1840.

The execution of the fifth section of the act requires the further interrogatories, whether any person, whose usual abode was in the family on the 1st day of June, 1840, be absent therefrom at the time of making the inquiry; and if so, the sex, age, color, and condition are to be asked for, and marked in the proper column in the return of the family. It follows, of course, that any person who, at the time of taking the enumeration of any family, has his abode in it, is, nevertheless, not to be included in the return of that family *if his usual place of abode was, on the 1st day of June, in another family*. The name of every person having no settled place of residence is to be inserted in the column of the schedule allotted for the heads of families, in the division where such person shall be on the 1st day of June, and proper insertions, also, in other columns, according to the age and condition of such person.

Your assistants will see that, by the sixth section of the act, each and every free person more than 16 years of age, whether heads of families or not, belonging to any family within any division, district, or Territory, is *obliged* to render the assistant of the division, if required, a true account, to the best of his or her knowledge, of every person belonging to such family respectively, according to the several descriptions in the schedule, under a penalty of \$20. They should, therefore, read that section to the person of whom they make the inquiry whenever it may be found necessary.

By the seventh section of the act, every assistant, before making his return to you, is required to cause correct copies, signed by himself, of the schedule containing the number of inhabitants within his division, to be set up at two of the most public places within the same for the inspection of all concerned—proof of which is to be transmitted to you by each of your assistants, and by you to the Department of State, with the return of the number of persons—upon failure of which the assistant will forfeit the compensation allowed him by the act. A form of the certificate to be written on the copy of the schedule (No. 4), which is to be transmitted, signed by two respectable witnesses, to the Department of State, has been prepared as a convenient mode of furnishing the proof required by the act.

One copy of the returns of enumeration, when received from all your assistants, is to be filed by you, together with an attested copy of the aggregate amount, to be made out by yourself, with the clerk of your district or superior court, who is directed to receive and carefully preserve them; and on or before the 1st day of December, 1840, you are to transmit to this Department one copy of the several returns received from each assistant—signed by each assistant respectively, and also by two respectable witnesses, that the same has been posted—and also one copy of the aggregate amount of each description of persons within your district, by which is to be understood, not merely the general aggregate amount of your whole district, but also the special aggregate of every subdivision of counties, cities, towns, townships, parishes, precincts, hundreds, and districts, and the several wards in principal cities—blanks for which are transmitted, numbered 8 and 9.

For the purpose of securing uniformity in the mode of rendering accounts of compensation for taking the census or enumeration of inhabitants, the following instructions on that point are added: No compensation will be made on account of enumeration until the whole of your district shall have been completed, and the returns made to this Department. When that shall have been done, you will make out an abstract of the compensation, payable to your assistants, on the blank forms (No. 11) transmitted to you for that purpose. This you will return in duplicate to this Department, accompanied by the necessary affidavits and certificates. For their amount, when found correct, a remittance will be made to you, with which you will be charged on the books of the Treasury. You will then, without delay, pay to each assistant the amount to which he is entitled, taking his receipt therefor. When the payments shall be completed you will transmit an account current with the United States for those payments—for any postages paid by you, and not before drawn for—and for your own compensation, as allowed by the act, you will credit in it the sums remitted to you. This account must be accompanied by the receipts of the assistants,

and for postages charged therein. On its adjustment, the balance appearing due to you will be remitted. As it is intended to transmit to you all the blank forms necessary for your own use, as well as for that of your assistants, and as the law authorizes no allowances to marshals except those specified in the act for their services and postages, no charge can be allowed for stationery or other incidental expenses, or for commission for disbursements to assistants or postmasters.

The twelfth section of the act provides that there shall be allowed and paid to the marshal of the several states and territories, and the District of Columbia, the amount of postage by them respectively paid on letters relating to their duties under this act.

The intention of the section referred to appears to be, that the assistants as well as the marshals should be relieved from the expense of postage in performing their duties under the act. You will, therefore, pay the postage on all communications in relation to the census to, as well as from, your assistants, and charge the Department therewith.

It will, perhaps, be advisable for you to make an arrangement with the postmasters where you receive and mail your letters, etc., for the census, to keep an account of such postages, to be settled quarterly. His receipt therefor will be a voucher of your having made the payment. For its amount you may draw upon this Department, being careful that the postmaster's receipt either accompany or precede your draft. This latter precaution will be necessary to insure the payment of the draft. Blank forms of such receipts and drafts are prepared for the purpose.

Should any difficulty or obstacle occur to any of your assistants in performing the duty assigned to them, it is directed that they give you immediate notice thereof, that you may take measures for removing it, if within your power. Should any such occur to yourself, you are requested to make an immediate communication of it to me. Should a greater number of blank forms be required than have been transmitted to you, you will receive them on giving notice to this Department. You are requested to acknowledge promptly the receipt of every package or communication, and to be particularly attentive to direct your answers after the mode prescribed in the circular of the 5th of April.

I am, sir, your obedient servant, etc.

#### CENSUS OF 1850.

SCHEDULE 1.—FREE INHABITANTS in ....., in the County of ....., State of ....., enumerated by me, on the ..... day of ....., 1850. ...., Ass't Marshal.

1. Dwelling houses numbered in the order of visitation.
2. Families numbered in the order of visitation.
3. The name of every person whose usual place of abode on the 1st day of June, 1850, was in this family.  
Description:
4. Age.
5. Sex.
6. Color—White, black, or mulatto.
7. Profession, occupation, or trade of each male person over 15 years of age.
8. Value of real estate owned.
9. Place of birth, naming the state, territory, or country.
10. Married within the year.
11. Attended school within the year,
12. Persons over 20 years of age who can not read and write.
13. Whether deaf and dumb, blind, insane, idiotic, pauper, or convict.

SCHEDULE 2.—SLAVE INHABITANTS in ....., in the County of ....., State of ....., enumerated by me, on the ..... day of ....., 1850. ...., Ass't Marshal.

1. Names of slave owners.
2. Number of slaves.  
Description:
3. Age.
4. Sex.
5. Color.
6. Fugitives from the state.
7. Number manumitted.
8. Deaf and dumb, blind, insane, or idiotic.

INSTRUCTIONS TO MARSHALS AND ASSISTANT MARSHALS—CENSUS  
OF 1850. (a)*To the Marshals:*

Having appointed your assistants, and received a duplicate of the oath of office taken by each, pursuant to your instructions from this Department, of the 25th ultimo, you will proceed immediately to the further execution of your duty, as defined by the act. It is an important service, looked to in its results with much interest, and it is expected that you will use every effort to discharge it with promptness, efficiency, and exactness.

You will be immediately furnished, by express, with a portfolio for each of your assistants, and a sufficient number of blanks for each to commence work. The necessary additional blanks will be, in like manner, furnished you as soon as practicable.

As 160 names may be entered on one sheet of population returns, and as three copies altogether are required, it follows that, for 160 names, 3 sheets of schedule No. 1 will be needed; and that for a district of 20,000 free inhabitants, 375 sheets would be required. To the number, however, which is required, on an accurate calculation, an addition of 25 per cent should be made to cover possible errors, losses, etc.; so that for a population of 20,000 in any one district, there should be sent 470 sheets of population blanks, or schedule No. 1.

You will, accordingly, estimate the number of free persons in each assistant's district, and calculate thereon the number of this schedule (No. 1) which will be required; and you will apportion the other schedules according to the character of the district, whether it be agricultural, planting, mining, manufacturing, or mercantile. The portfolios and schedules are to be transmitted by you to your assistants by mail, pursuant to the seventeenth section of the act, unless a more eligible mode can be resorted to, without expense.

No. 2. Of schedule No. 2, *Slave Inhabitants*, the same number will be required for a slave population of 20,000 that would be required for the same number of free persons, as each sheet will include the same number of slaves that schedule No. 1 will of free population.

No. 3. No less than four copies of schedule No. 3 should be sent to each assistant, the fourth copy being sent to provide for loss or accident; and cases will not very frequently occur, except in populous districts, where more than that number will be necessary.

No. 4. Of the *Agricultural* schedule, you can be the only judge of what number will be requisite for a particular subdivision. Four sheets of schedule No. 4 should be sent for every eighty farm or plantation owners or occupiers.

No. 5. Of schedule No. 5, *Statistics of Industry*, there should be sent to the assistants about four sheets for each thirty manufacturers in his district; or forty, provided the manufactories are generally on a small scale. The statistics relating to four blacksmiths would not require more room than those relating to one woolen or cotton factory.

No. 6. Of schedule No. 6, *Social Statistics*, it is presumed that four sheets will be sufficient for most assistants, except in cities; and even there, unless the social statistics for a whole city should be taken by one individual.

If more than three copies of any schedule be required in a subdivision, six will be needed, as there must be *three copies* of every variety of statistics taken. You should use much care in the distribution of the blanks, in order that the supply be not unnecessarily exhausted.

Having furnished your assistants with the blanks and instructions, you will direct them to inform you when they commence the enumeration of the district assigned, and at least once in every two weeks, where mail facilities exist, they should be required to inform you of the progress made in the work. Failing to get such information from any assistant, it will be your duty to make inquiries concerning the district, so as to be assured that the assistant is at work, and to take those efficient steps which the law provides, to remedy any evil or inattention which may exist. You have, at any time, for cause sufficient, the power to cancel the appointment of an assistant, and to appoint another for the district; and it is your duty to do so whenever the public interest suffers from the neglect or incompetency of any assistant.

2. By the seventh section of the above act, it is made your duty "*to keep an accurate record of the name, and area in square miles, of each subdivision, and of each assistant within your district.*" The object of this proviso is to determine the rate of payment to be made to the assistants. It is supposed and believed that in all States

the areas of the different subdivisions may be pretty accurately known. It should be ascertained with complete exactness when the means exist for doing so. Where the reputed or estimated area is upon data not *entirely reliable*, this fact should be stated.

In the new States, where the county and town divisions are made by parallel lines, little difficulty can occur, and in the older States the gazetteers usually contain the required information; but, as they can not always be relied on, and counties have undergone change of character, the information should be obtained from the county surveyor, or clerk, or other reliable source; and you should require each assistant to furnish you with a certificate, under the hand of some reliable person, of the number of square miles in his district.

You should consider this as one of your first duties, so that, if possible, it may be made known to the assistant, soon after his appointment, the area of his district, and thus prevent the occurrence of any subsequent dispute. You should arrange a book, in some convenient method, by which you can easily refer to the description of the district, the number of square miles therein, and the name of each assistant, and the state of the work in each subdivision.

Postmasters should be notified concerning the provision in the seventeenth section of the act, which authorizes you and your assistants to frank all census packages and letters.

3. By the fifth section it is also made your duty "*carefully to examine the returns of each assistant*, to see whether the work has been executed in a lawful manner."

You should carefully examine the returns, to see that every part of the district embraced has been visited, and all the required information obtained, and the schedules filled up according to the instructions.

4. By the fifth section it is provided, that you shall transmit, forthwith, "*one set of the returns to the census office.*" This set should be transmitted without any delay, and in convenient sized packages. You should keep an accurate account of returns forwarded to the census office, and of the date at which they were mailed; and if the receipt of them is not acknowledged in due course of mail, you should write and inquire whether they have been received. You are required, by the same section, to transmit the other copy thereof to the office of the secretary of the State, or Territory, to which your district belongs.

5. You and your assistants are requested to obtain, if practicable, and forward to the census office, copies of local printed reports of towns, counties, and States, relating to the expenditures, to schools, pauperism, crime, insanity, and other local matters which are required to be investigated by the schedules.

6. You should instruct your assistants, upon the receipt of the instructions and blanks, to commence immediately to discharge their duty, and use all exertions to have them performed during the earlier portion of the time allotted for the work, and not procrastinate, in the expectation of being able to prosecute the work during the latter portion of the period.

When such procrastination occurs, or other causes (which might by timely caution be avoided) operate to defeat the consummation of the duty, neither you nor your assistants will be entitled to compensation, but render yourselves liable to a penalty.

#### *To the Assistant Marshals:*

1. The assistant marshal, having been duly commissioned, will be provided with a portfolio, to be furnished with the schedules, of sufficient size to contain several sheets of the same without folding, that may be easily opened, and used for writing on, if necessary; and he should furnish himself with ink, blotting paper, and pens. Strings should be attached to the portfolio, to prevent the loss of any of its contents.

2. He is to approach every family and individual from whom he solicits information with civil and conciliatory manners, and adapt himself, as far as practicable, to the circumstances of each, to secure confidence and good will, as a means of obtaining the desired information with accuracy and despatch.

3. If any person, to whom application is made for information should refuse to give it, or should designedly give false information, the assistant should inform him of the responsibility he thereby incurs, and that he renders himself liable to a penalty, according to the fifteenth section of the act of Congress.

4. The act provides that "*the assistant marshals shall make the enumeration by actual inquiry at every dwelling house, or by personal inquiry of the head of every family, and not otherwise.*" This requirement must be strictly observed.

5. As soon as the schedules are filled up, and the information in relation to each family is obtained according to the instructions, the assistant should read over, and exhibit to the parties from whom he received the same, the record of the information obtained, and correct or supply any error or omission. The object of this rule is to prevent mistakes, and secure accuracy.

6. Each assistant is to complete the enumeration with as little delay as possible, after commencing it, and should inform the marshal, at least once in two weeks, of the progress he is making in his district.

7. On each page of the population and agricultural schedules is to be inserted the date when such page was *commenced*, although it may not have been completely filled up until the following day. When the whole enumeration in his district shall have been completed, two complete copies of all the pages are to be made. These are to be carefully read over, and each compared to see that it is correct and agrees with the original.

8. Each assistant is to sign his name on each page of the schedule, and certify, and make oath or affirmation, at the end of each set of returns, that they were made according to his oath and instructions, to the best of his knowledge and belief. Two of the sets are to be forwarded to the marshal of his district, and one filed with the clerk of the court for preservation with the county records; in proof of the filing of which he must procure, and forward to his marshal, the certificate of the clerk of the county.

Discretion as to what schedules will be needed by each assistant is lodged with the marshal, and is at all times to be used. In the free States schedule No. 2 will be omitted.

For the guidance of assistants, each will be furnished with a set of schedules filled up in the manner contemplated by the act of Congress and these instructions.

#### CIRCULAR TO MARSHALS, ETC.—CENSUS OF 1850.

##### *To the United States Marshals and Assistants:*

Information has been received at this office that in some cases unnecessary exposure has been made by the assistant marshals with reference to the business and pursuits, and other facts relating to individuals, merely to gratify curiosity, or the facts applied to the private use or pecuniary advantage of the assistant, to the injury of others. Such a use of the returns was neither contemplated by the act itself nor justified by the intentions and designs of those who enacted the law. No individual employed under sanction of the Government to obtain these facts has a right to promulgate or expose them without authority.

Although designed ultimately for the use of the people at large, the Department reserves to itself the privilege of examining into the correctness of the returns, and arranging them in proper form for publication by Congress before any other use shall be made thereof; and all marshals and assistants are expected to consider the facts intrusted to them as if obtained exclusively for the use of the Government, and not to be used in any way to the gratification of curiosity, the exposure of any man's business or pursuits, or for the private emolument of the marshal or assistants, who, while employed in this service, act as the agents of the Government in the most confidential capacity. When your original copies are filed with the clerks of the courts and secretary of your state, they will be under the control of those officers and subject to the usual regulations of the respective offices, and you can enjoy the same access to them which can be had by every citizen. To the publication of the mere aggregate number of persons in your district there can be no objection.

#### EXPLANATION OF SCHEDULE NO. 1.—FREE INHABITANTS.

This schedule is to be filled up in the following manner:

Insert in the heading the name or number of the district, town, or city of the county or parish, and of the state, and the day of the month upon which the enumeration was taken. This is to be attested on each page of each set, by the signature of the assistant.

The several columns are to be filled as follows:

1. Under heading 1, entitled "*Dwelling houses numbered in the order of visitation*," insert the number of dwelling houses occupied by free inhabitants, as they are visited. The first house visited to be numbered 1; the second one visited, 2; the third one visited, 3; and so on to the last house visited in the subdivision. By a dwelling house is meant a separate inhabited tenement, containing one or more families under one roof. Where several tenements are in one block, with walls either of brick or wood to divide them, having separate entrances, they are each to be numbered as separate houses; but where not so divided, they are to be numbered as one house.

If a house is used partly for a store, shop, or for other purposes, and partly for a

dwelling house, it is to be numbered as a dwelling house. Hotels, poorhouses, garrisons, hospitals, asylums, jails, penitentiaries, and other similar institutions, are each to be numbered as a dwelling house; where the house is of a public nature, as above, write perpendicularly under the number, in said column, the name or description, as "hotel," "poorhouse," etc.

2. Under heading 2, entitled "*Families numbered in the order of visitation*," insert the number of the families of free persons, as they are visited. The first family visited by the assistant marshal is to be numbered 1; the second one visited, 2; and so on to the last one visited in his district.

By the term family is meant, either one person living separately in a house, or a part of a house, and providing for him or herself, or several persons living together in a house, or in part of a house, upon one common means of support, and separately from others in similar circumstances. A widow living alone and separately providing for herself, or 200 individuals living together and provided for by a common head, should each be numbered as one family.

The resident inmates of a hotel, jail, garrison, hospital, an asylum, or other similar institution, should be reckoned as one family.

3. Under heading 3, entitled "*The name of every person whose usual place of abode on the 1st day of June, 1850, was in this family*," insert the name of every free person in each family, of every age, including the names of those temporarily absent, as well as those that were at home on that day. The name of any member of a family who may have died since the 1st day of June is to be entered and described as if living, but the name of any person born since the 1st day of June is to be omitted. The names are to be written, beginning with the father and mother; or if either, or both, be dead, begin with some other ostensible head of the family; to be followed, as far as practicable, with the name of the oldest child residing at home, then the next oldest, and so on to the youngest, then the other inmates, lodgers and boarders, laborers, domestics, and servants.

All landlords, jailors, superintendents of poorhouses, garrisons, hospitals, asylums, and other similar institutions, are to be considered as heads of their respective families, and the inmates under their care to be registered as members thereof, and the details concerning each designated in their proper columns.

Indians not taxed are not to be enumerated in this or any other schedule.

By place of abode is meant the house or usual lodging place of a person. Anyone who is temporarily absent on a journey, or for other purposes, without taking up his place of residence elsewhere, and with the intention of returning again, is to be considered a member of the family which the assistant marshal is enumerating.

Students in colleges, academies, or schools, when absent from the families to which they belong, are to be enumerated only as members of the family in which they usually boarded and lodged on the 1st day of June.

Assistant marshals are directed to make inquiry at all stores, shops, eating houses, and other similar places, and take the name and description of every person who usually slept there, provided such person is not otherwise enumerated.

Inquiries are to be made at every dwelling house, or of the head of every family. Those only who belong to such family, and consider it their home or usual place of abode, whether present or temporarily absent on a visit, journey, or a voyage, are to be enumerated. Persons on board of vessels accidentally or temporarily in port, those whose only habitation was the vessel to which they belong, those who are temporarily boarding for a few days at a sailors' boarding or lodging house, if they belong to other places are not to be enumerated as the population of a place.

The sailors and hands of a revenue cutter which belongs to a particular port should be enumerated as of such port. A similar rule will apply to those employed in the navigation of the lakes, rivers, and canals. All are to be taken at their homes or usual places of abode, whether present or absent; and if any live on board of vessels or boats who are not so enumerated, they are to be taken as of the place where the vessel or boat is owned, licensed, or registered. And the assistant marshals are to make inquiry at every vessel and boat employed in the internal navigation of the United States, and enumerate those who are not taken as belonging to a family on shore; and all persons of such description in any one vessel are to be considered as belonging to one family and the vessel their place of abode. The assistants in all seaports will apply at the proper office for lists of all persons on a voyage at sea and register all citizens of the United States who have not been registered as belonging to some family.

Errors necessarily occurred in the last census in enumerating those employed in navigation, because no uniform rule was adopted for the whole United States. Assistant marshals are required to be particular in following the above directions, that similar errors may now be avoided.

4. Under heading 4, entitled "*Age*," insert in figures what was the specific age of each person at his or her last birthday previous to the 1st of June, opposite the name of such person. If the exact age in years can not be ascertained, insert a number which shall be the nearest approximation to it.

The age, either exact or estimated, of everyone, is to be inserted.

If the person be a child under 1 year old, the entry is to be made by the fractional parts of a year, thus: One month, one-twelfth; two months, two-twelfths; three months, three-twelfths, and so on to eleven months, eleven-twelfths.

5. Under heading 5, entitled "*Sex*," insert the letter M for male, and F for female, opposite the name, in all cases, as the fact may be.

6. Under heading 6, entitled "*Color*," in all cases where the person is white, leave the space blank; in all cases where the person is black, insert the letter B; if mulatto, insert M. It is very desirable that these particulars be carefully regarded.

7. Under head 7, entitled "*Profession, occupation, or trade of each person over 15 years of age*," insert opposite the name of each male the specific profession, occupation, or trade which the said person is known and reputed to follow in the place where he resides—as clergyman, physician, lawyer, shoemaker, student, farmer, carpenter, laborer, tailor, boatman, sailor, or otherwise, as the fact may be. When more convenient, the name of the article he produces may be substituted.

When the individual is a clergyman, insert the initials of the denomination to which he belongs before his profession—as Meth. for Methodist, R. C. for Roman Catholic, O. S. P. for Old School Presbyterian, or other appropriate initials, as the fact may be. When a person follows several professions or occupations the name of the principal one only is to be given. If a person follows no particular occupation, the space is to be filled with the word "none."

8. Under heading 8 insert the value of real estate owned by each individual enumerated. You are to obtain the value of real estate by inquiry of each individual who is supposed to own real estate, be the same located where it may, and insert the amount in dollars. No abatement of the value is to be made on account of any lien or incumbrance thereon in the nature of debt.

9. Under heading 9, "*Place of birth*." The marshal should ask the place of birth of each person in the family. If born in the State or Territory where they reside, insert the name or initials of the State or Territory, or the name of the government or country if without the United States. The names of the several States may be abbreviated.

Where the place of birth is unknown, state "unknown."

10. Under No. 10 make a mark, or dash, opposite the name of each person married during the year previous to the 1st of June, whether male or female.

11. Under heading 11, entitled "*At school within the last year*." The marshal should ask what member of this family has been at school within the last year; he is to insert a mark, thus, (1), opposite the names of all those, whether male or female, who have been at educational institutions within that period. Sunday schools are not to be included.

12. Under heading 12, entitled "*Persons over 20 years of age who can not read and write*." The marshal should be careful to note all persons in each family, over 20 years of age, who can not read and write, and opposite the name of each make a mark, thus, (1). The spaces opposite the names of those who can read and write are to be left blank. If the person can read and write a foreign language, he is to be considered as able to read and write.

13. Heading 13, entitled "*Deaf and dumb, blind, insane, idiotic, pauper, or convict*." The assistant marshal should ascertain if there be any person in the family deaf, dumb, idiotic, blind, insane, or pauper. If so, who? And insert the term "deaf and dumb," "blind," "insane," and "idiotic," opposite the name of such persons, as the fact may be. When persons who had been convicted of crime within the year reside in families on the 1st of June, the fact should be stated, as in the other cases of criminals; but, as the interrogatory might give offense, the assistants had better refer to the county record for information on this head, and not make the inquiry of any family. With the county record and his own knowledge he can seldom err.

Should a poorhouse, asylum for the blind, insane or idiotic, or other charitable institution, or a penitentiary, a jail, house of refuge, or other place of punishment, be visited by the assistant marshal, he must number such building in its regular order, and he must write after the number, and perpendicularly in the same column (No. 1) the nature of such institution—that it is a penitentiary, jail, house of refuge, as the case may be; and in column 13, opposite the name of each person, he must state the character of the infirmity or misfortune, in the one case, and in the other he must state the crime for which each inmate is confined, and of which such person was

convicted; and in column No. 3, with the name, give the year of conviction, and fill all the columns concerning age, sex, color, etc., with as much care as in the case of other individuals.

#### EXPLANATION OF SCHEDULE 2—SLAVE INHABITANTS.

This schedule is to be filled up in the following manner:

Insert in the heading the number or name of the district, town, city, and the county or parish, and of the state in which the slave inhabitants enumerated reside, and the day of the month upon which the enumeration was taken. This is to be attested on each page of each set, by the signature of the assistant marshal. The several columns are to be filled up as follows:

1. Under heading 1, entitled "*Name of slaveholders*," insert, in proper order, the names of the owners of slaves. Where there are several owners to a slave, the name of one only need be entered, or when owned by a corporation or trust estate, the name of the trustee or corporation.

2. Under heading 2, entitled "*Number of slaves*," insert, in regular numerical order, the number of all the slaves of both sexes and of each age, belonging to such owners. In the case of slaves, numbers are to be substituted for names. The number of every slave who usually resides in the district enumerated is to be entered, although he may happen to be temporarily absent. The slaves of each owner are to be numbered separately, beginning at No. 1, and a separate description of each is to be given. The person in whose family, or on whose plantation, the slave is found to be employed, is to be considered the owner—the principal object being to get the number of slaves, and not that of masters or owners.

3. Under heading 3, entitled "*Age*," insert, in figures, the specific age of each slave opposite the number of such slave. If the exact age can not be ascertained, insert a number which shall be the nearest approximation to it. The age of every slave, either exact or estimated, is to be inserted. If the slave be a child which, on the 1st of June, was under 1 year old, the entry is to be made by fractional parts of a year; thus, one month old, one-twelfth; two months, two-twelfths; three months, three-twelfths; eleven months, eleven-twelfths; keeping ever in view, in all cases, that the age must be estimated at no later period than the 1st of June.

4. Under heading 4, entitled "*Sex*," insert the letter M for male, and F for female, opposite the number, in all cases, as the fact may be.

5. Under heading 5, entitled "*Color*," insert, in all cases, when the slave is black, the letter B; when he or she is a mulatto, insert M. The color of all slaves should be noted.

6. Under heading 6 insert, in figures, opposite the name of the slave owner, the number of slaves who, having absconded within the year, have not been recovered.

7. In column 7, insert opposite the name of the former owner thereof, the number of slaves manumitted within the year. The name of the person is to be given, although at the time of the enumeration such person may not have held slaves on the 1st of June. In such case, no entry is to be made in column No. 2.

8. Under heading 8, entitled "*Deaf and dumb, blind, insane, or idiotic*," the assistant should ascertain if any of these slaves be deaf and dumb, blind, insane, or idiotic; and if so, insert opposite the name or number of such slave, the term deaf and dumb, blind, insane, or idiotic, as the fact may be. If slaves be found imprisoned convicts, mention the crime in column 8, and the date of conviction before the number in the vacant space below the name of the owner. The convict slaves should be numbered with the other slaves of their proper owner.

[The explanations relating to the schedules of mortality, agriculture, products of industry, and social statistics follow the inquiries relating to these subjects under their respective heads.]

## CENSUS OF 1860.

SCHEDULE 1.—FREE INHABITANTS in ....., in the County of ....., State of ....., enumerated by me, on the ..... day of ....., 1860. ...., Ass't Marshal. Post-office.....

1. Dwelling houses numbered in the order of visitation.
2. Families numbered in the order of visitation.
3. The name of every person whose usual place of abode on the 1st day of June, 1860, was in this family.  
Description :
  4. Age.
  5. Sex.
  6. Color—White, black, or mulatto.
  7. Profession, occupation, or trade of each person, male and female, over 15 years of age.
- Value of estate owned :
  8. Value of real estate.
  9. Value of personal estate.
10. Place of birth, naming the state, territory, or country.
11. Married within the year.
12. Attended school within the year.
13. Persons over 20 years of age who can not read and write.
14. Whether deaf and dumb, blind, insane, idiotic, pauper, or convict.

SCHEDULE 2.—SLAVE INHABITANTS in ....., in the County of ....., State of ....., enumerated by me, on the ..... day of ....., 1860. ...., Ass't Marshal.

1. Names of slave owners.
2. Number of slaves.  
Description:
  3. Age.
  4. Sex.
  5. Color.
  6. Fugitives from the state.
  7. Number manumitted.
  8. Deaf and dumb, blind, insane, or idiotic.
  9. Number of slave houses.

## CENSUS OF 1870.

SCHEDULE 1.—INHABITANTS in ....., in the County of ....., State of ....., enumerated by me on the ..... day of ....., 1870. ...., Ass't Marshal. Post-office: .....

[Inquiries numbered 7, 16, and 17 are not to be asked in respect to infants. Inquiries numbered 11, 12, 15, 16, 17, 19, and 20 are to be answered (if at all) merely by an affirmative mark, as /.]

1. Dwelling houses numbered in the order of visitation.
2. Families numbered in the order of visitation.
3. The name of every person whose place of abode on the 1st day of June, 1870, was in this family.  
Description:
  4. Age at last birthday. If under 1 year, give months in fractions, thus, 3/12.
  5. Sex—Males (M), females (F).
  6. Color—White (W), black (B), mulatto (M), Chinese (C), Indian (I).
  7. Profession, occupation, or trade of each person, male or female.
- Value of real estate owned:
  8. Value of real estate.
  9. Value of personal estate.
10. Place of birth, naming state or territory of United States, or the country, if of foreign birth.  
Parentage:
  11. Father of foreign birth.
  12. Mother of foreign birth.
13. If born within the year, state month (Jan., Feb., etc.).
14. If married within the year, state month (Jan., Feb., etc.).

15. Attended school within the year.
- Education:
  16. Can not read.
  17. Can not write.
  18. Whether deaf and dumb, blind, insane, or idiotic.
- Constitutional relations:
  19. Male citizens of United States of 21 years of age and upwards.
  20. Male citizens of United States of 21 years of age and upwards, whose right to vote is denied or abridged on other grounds than rebellion or other crime.

## INSTRUCTIONS TO ASSISTANT MARSHALS.

DEPARTMENT OF THE INTERIOR,  
Washington, D. C., May 1, 1870.

The following rules and instructions are published for the guidance of assistant marshals. Strict and literal compliance in every particular will be enforced. The Department will not recognize any claim for compensation until the whole work has been well and properly done.

J. D. Cox,  
*Secretary of the Interior.*

FRANCIS A. WALKER,  
*Sup't of Census.*

## GENERAL DIRECTIONS.

Assistant marshals will begin the enumeration of their subdivisions, June 1, and continue it without interruption till the work is complete. Intermission of work will be sufficient cause for removal.

Assistant marshals will report progress to the marshal regularly once a fortnight: failure to do so will be sufficient cause for removal.

Each assistant will provide himself with a secure portable inkstand, good ink, and a sufficient number of pens. All entries will be carefully dried with the blotting paper which accompanies each portfolio. Each page of schedules will be numbered in exact order as filled, and when filled. The first page of the first sheet of each of the five schedules (Inhabitants, Mortality, Agriculture, etc.) must be numbered 1; first page of second sheet, 5; first page of third sheet, 9; and so on, continuously, until the township, or borough, or parish, (or ward of a city) is completed. Begin each township, borough, etc., with a new sheet, or new half sheet (without tearing it off). Use the greatest care to preserve your blanks from unnecessary exposure, and your schedules, when filled, from loss. Let no one meddle with your papers. Carry as little finished work as possible, and as few schedules at a time as will answer your purpose. Always carry the full pamphlet of instructions.

*Sheets must never be folded*, either in the course of enumeration, or in transmission to marshals, or to the census office. Whenever sheets are sent in sufficient number to allow it, they will be sent in flat packages, at length. When the package is too small for this, the sheets will be *rolled*.

*Half sheets* will not be used, except when they are the *last* or the *only* sheets (of that schedule) from that subdivision. A limited number of half sheets is furnished for use in the smaller subdivisions.

There are certain columns on each schedule which must be filled in every case, or the work of enumeration has not been performed.

Such are:

- 3, 4, 5, 6, 10, on schedule 1.
- 1, 2, 3, 4, 5, 7, 10, 12, on schedule 2.
- 1, 2, 52, on schedule 3.
- 1, 2, 3, 12, 15, 18, on schedule 4.

When the census office is put to trouble and expense, by having to obtain through subsequent correspondence the answers to these questions, the cost of clerk hire and correspondence to the Department will be estimated, and deduction will be made for work not done. The attention of assistant marshals is invited, in this connection, to the phraseology of the law fixing the rates of compensation. "For each farm *fully returned*, ten cents; for each establishment of productive industry, *fully taken and returned*, fifteen cents." (Section 13, act of May 23, 1850.)

After enumerating a family, farm, shop, etc., the entries made should be read over to the party giving the information, that all mistakes may be corrected on the spot, at the time. This is a requirement of law.

The new name of the town, township, parish, etc., of the county, of the state, and of the post-office; the day of the month, and the month, and the name of the assistant marshal, in his own handwriting, must be filled into the proper spaces on each page, except in the case of the agricultural schedule, where each alternate page will be signed and filled as above required.

On all the schedules, when Values are required to be stated, omit fractions of a dollar.

As far as possible, assistant marshals will have the first copy of their returns made from the sheets as they are completed, so that the full returns may be sent to the marshal at the earliest practicable moment after the enumeration closes. Great pains will be taken in comparing the copy intended for the census office with the originals, point by point. The second copy required by law will be forwarded to the marshal when completed. At the end of each set of returns, the assistant marshal will certify that they were made according to law and instructions.

Special attention will be paid to the rules relating to the distribution, care, and use of blanks, laid down in circular from the Department of the Interior, of May 12, 1870.

Assistant marshals will return their portfolios to the marshals when their duties are completed.

The tenth section of the act of May 23, 1850, requires that the assistant marshal shall make the enumeration by actual inquiry at every dwelling house, or by personal inquiry of the head of every family, and not otherwise. The duty can not be performed by deputy or proxy. General publication will be made of the fact, so that citizens may know their rights, and resent unauthorized intrusion or inquiry. When persons properly subject to enumeration refuse to give information in the particulars required, they will be admonished of their liability under the provisions of the fifteenth section of the act of May 23, 1850. Assistant marshals will, however, make as little show as possible of authority. They will approach every individual in a conciliatory manner; respect the prejudices of all; adapt their inquiries to the comprehension of foreigners and persons of limited education, and strive in every way to relieve the performance of their duties from the appearance of obtrusiveness. Anything like an overbearing disposition should be an absolute disqualification for the position.

No graver offense can be committed by assistant marshals than to divulge information acquired in the discharge of their duty. All disclosures should be treated as strictly confidential, with the exception hereafter to be noted in the case of the mortality schedule. Information will be solicited of any breach of confidence on the part of assistant marshals. The department is determined to protect the citizen in all his rights in the present census.

Assistant marshals, on receiving notice of their appointment, are advised and requested to prosecute informal inquiries, within the limits of civility and discretion, in any direction which will enable them the better to begin and complete their work; especially to make themselves as intelligent as possible in regard to the industrial character of their subdivisions, and the peculiar conditions of each important industry.

#### SCHEDULE 1.—INHABITANTS.

*Numbering.*—Dwelling houses and families will be numbered consecutively, in order as visited, until the township, borough, or parish (or ward of a city) is completed, when a new numbering will begin, as is the case with the numbering of pages.

*Dwelling houses.*—By "dwelling house" is meant a house standing alone, or separated by walls from other houses in a block. Only such buildings are to be reckoned as dwelling houses as have been used as the entire habitation of a family. But houses only temporarily uninhabited are to be returned and numbered in order. In that case a dash, thus (—), will be drawn through column No. 2, and the remaining spaces on the line be left blank. Hotels, poorhouses, garrisons, asylums, jails, and similar establishments, where the inmates live habitually under a single roof, are to be regarded as single dwelling houses for the purposes of the census. The character of such establishments should be written longitudinally in the column.

*Eating houses, stores, shops, etc.*—Very many persons, especially in cities, have no other place of abode than stores, shops, etc.; places which are not primarily intended for habitation. Careful inquiry will be made to include this class and such buildings will be reckoned as dwelling houses within the intention of the census law; but a watchman, or clerk belonging to a family resident in the same town or city, and sleeping in such store or shop merely for purposes of security, will be enumerated as of his family.

*Families.*—By "family" (column 2) is meant one or more persons living together and provided for in common. A single person, living alone in a distinct part of a

house, may constitute a family; while, on the other hand, all the inmates of a boarding house or a hotel will constitute but a single family, though there may be among them many husbands with wives and children. Under whatever circumstances, and in whatever numbers, people live together under one roof, and are provided for at a common table, there is a family in the meaning of the law.

*Names of individuals.*—In column 3 will be entered the name of every person in each family, of whatever age, including the names of such as were temporarily absent on the 1st day of June, 1870. The name of any member of the family who may have died between the 1st day of June, 1870, and the day of the assistant marshal's visit is to be entered, and the person fully described, as if living; but the name of any person born during that period is to be omitted. The name of the father, mother, or other ostensible head of the family (in the case of hotels, jails, etc., the landlord, jailor, etc.) is to be entered first of the family. The family name is to be written first in the column, and the full *first* or *characteristic* Christian or "given" name of each member of the family in order thereafter. So long as the family name remains the same for the several members it need not be repeated, provided a clear horizontal line be drawn in the place it would occupy, thus:

Smith, John.  
— Elizabeth.

*Place of abode.*—By "place of abode" is meant the house or usual lodging place. All persons temporarily absent on journey or visit are to be counted as of the family; but children and youth absent for purposes of education on the 1st of June, and having their home in a family where the school or college is situated, will be enumerated at the latter place.

Seafaring men are to be reported at their land homes, no matter how long they may have been absent, if they are supposed to be still alive. Hence, sailors temporarily at a sailors' boarding or lodging house, if they *acknowledge any other home within the United States*, are not to be included in the family of the lodging or boarding house. Persons engaged in internal transportation, canal men, expressmen, railroad men, etc., if they habitually return to their homes in the intervals of their occupation, will be reported as of their families, and not where they may be temporarily staying on the 1st of June.

#### PERSONAL DESCRIPTION.

Columns 4, 5, and 6 must, in every case, be filled with the age, sex, or color of the person enumerated. No return will be accepted when these spaces are left blank.

*Ages.*—The exact age, in figures, will be inserted in column 4, wherever the same can be obtained; otherwise, the nearest approximation thereto. Where the age is a matter of considerable doubt, the assistant marshal may make a note to that effect. Children, who, on the 1st of June, 1870, were less than a year old, will have their age stated by the fractional part of the year, as (one month) 1-12, (three months) 3-12, (nine months) 9-12, etc. In all other cases, months will be omitted. The age taken is the age at last birthday.

*Color.*—It must not be assumed that, where nothing is written in this column, "White" is to be understood. The column is always to be filled. Be particularly careful in reporting the class *Mulatto*. The word is here generic, and includes quadroons, octoroons, and all persons having any perceptible trace of African blood. Important scientific results depend upon the correct determination of this class in schedules 1 and 2.

(For reporting occupation, see remarks at the close of the instructions in regard to this schedule.)

*Property.*—Column 8 will contain the value of all real estate owned by the person enumerated, without any deduction on account of mortgage or other incumbrance, whether within or without the census subdivision or the county. The value meant is the full market value, known or estimated.

"Personal estate," column 9, is to be inclusive of all bonds, stocks, mortgages, notes, live stock, plate, jewels, or furniture, but exclusive of wearing apparel. No report will be made when the personal property is under \$100.

Column 10 will contain the "Place of birth" of every person named upon the schedule. If born within the United States, the State or Territory will be named, whether it be the State or Territory in which the person is at present residing or not. If of foreign birth, the country will be named as specifically as possible. Instead of writing "Great Britain" as the place of birth, give the particular country, as England, Scotland, Wales. Instead of "Germany," specify the State, as Prussia, Baden, Bavaria, Wurttemberg, Hesse Darmstadt, etc.

The inquiries in columns numbered 11, 12, 15, 16, 17, 19, and 20 are of such a nature that these columns only require to be filled when the answer to the inquiry is "Yes." If the person being enumerated had a father or mother of foreign birth; if he or she attended school during the year; if he or she can not read or can not write; if he is a citizen of the United States above the age of 21 years, and if, being such citizen, his right to vote is denied or abridged on other grounds than participation in rebellion or other crime, then an affirmative mark, thus, (/), will be drawn in each of the above columns opposite the name.

*Education.*—It will not do to assume that, because a person can read, he can, therefore, write. The inquiries contained in columns 16 and 17 must be made separately. Very many persons who will claim to be able to read, though they really do so in the most defective manner, will frankly admit that they can not write. These inquiries will not be asked of children under 10 years of age. In regard to all persons above that age, children or adults, male and female, the information will be obtained.

*At school.*—It is not intended to include those whose education has been limited to Sunday or evening schools.

*Deaf and dumb, Blind, Insane, or Idiotic.*—Great care will be taken in performing this work of enumeration, so as at once to secure completeness and avoid giving offense. Total blindness and undoubted insanity only are intended in this inquiry. Deafness merely, without the loss of speech, is not to be reported. The fact of idiocy will be better determined by the common consent of the neighborhood, than by attempting to apply any scientific measure to the weakness of the mind or will.

#### CONSTITUTIONAL RELATIONS.

Upon the answers to the questions under this head will depend the distribution of representative power in the General Government. It is therefore imperative that this part of the enumeration should be performed with absolute accuracy. Every male person born within the United States, who has attained the age of 21 years, is a citizen of the United States by the force of the Fourteenth Amendment to the Constitution; also, all persons born out of the limits and jurisdiction of the United States, whose fathers at the time of their birth were citizens of the United States (act of February 10, 1855); also, all persons born out of the limits and jurisdiction of the United States, who have been declared by judgment of court to have been duly naturalized, having taken out both "papers."

The part of the enumerator's duty which relates to column 19 is therefore easy, but it is none the less of importance. It is a matter of more delicacy to obtain the information required by column 20. Many persons never try to vote, and therefore do not know whether their right to vote is or is not abridged. It is not only those whose votes have actually been challenged, and refused at the polls for some disability or want of qualification, who must be reported in this column; but all who come within the scope of any State law denying or abridging suffrage to any class or individual on any other ground than participation in rebellion, or legal conviction of crime. Assistant marshals, therefore, will be required carefully to study the laws of their own States in these respects, and to satisfy themselves, in the case of each male citizen of the United States above the age of 21 years, whether he does or does not, come within one of these classes.

As the fifteenth amendment to the Constitution, prohibiting the exclusion from the suffrage of any person on account of race, color, or previous condition of servitude, has become the law of the land, all State laws working such exclusion have ceased to be of virtue. If any person is, in any State, still practically denied the right to vote by reason of any such State laws not repealed, that denial is merely an act of violence, of which the courts may have cognizance, but which does not come within the view of marshals and their assistants in respect to the census.

*Indians.*—"Indians not taxed" are not to be enumerated on schedule 1. Indians out of their tribal relations, and exercising the rights of citizens under State or Territorial laws, will be included. In all cases write "Ind." in the column for "Color." Although no provision is made for the enumeration of "Indians not taxed," it is highly desirable, for statistical purposes, that the number of such persons not living upon reservations should be known. Assistant marshals are therefore requested, where such persons are found within their subdivisions, to make a separate memorandum of names, with sex and age, and embody the same in a special report to the census office.

*Occupation.*—The inquiry, "Profession, occupation, or trade," is one of the most important questions of this schedule. Make a study of it. Take special pains to avoid unmeaning terms, or such as are too general to convey a definite idea of the

occupation. Call no man a "factory hand" or a "mill operative." State the kind of a mill or factory. The better form of expression would be, "works in cotton mill," "works in paper mill," etc. Do not call a man a "shoemaker," "bootmaker," unless he makes the entire boot or shoe in a small shop. If he works in (or for) a boot and shoe factory, say so.

Do not apply the word "jeweler" to those who make watches, watch chains, or jewelry in large manufacturing establishments.

Call no man a "commissioner," a "collector," an "agent," an "artist," an "overseer," a "professor," a "treasurer," a "contractor," or a "speculator," without further explanation.

When boys are entered as apprentices, state the trade they are apprenticed to, as "apprenticed to carpenter," "apothecary's apprentice."

When a lawyer, a merchant, a manufacturer, has retired from practice or business, say "retired lawyer," "retired merchant," etc. Distinguish between fire and life insurance agents.

When clerks are returned, describe them as "clerk in store," "clerk in woolen mill," "R. R. clerk," "bank clerk," etc.

Describe no man as a "mechanic" if it is possible to describe him more accurately.

Distinguish between stone masons and brick masons.

Do not call a bonnet maker a bonnet manufacturer, a lace maker a lace manufacturer, a chocolate maker a chocolate manufacturer. Reserve the term manufacturer for proprietors of establishments; always give the *branch* of manufacture.

Whenever merchants or traders can be reported under a single word expressive of their special line, as "grocer," it should be done. Otherwise, say dry goods merchant, coal dealer, etc.

Add, in all cases, the class of business, as wholesale (wh.), retail (ret.), importer (imp.), jobber, etc.

Use the word huckster in all cases where it applies.

Be very particular to distinguish between farmers and farm laborers. In agricultural regions this should be one of the points to which the assistant marshal should especially direct his attention.

Confine the use of the words "glover," "hatter," and "furrier" to those who *actually make*, or make up, in their own establishments, all, or a part, of the gloves and hats or furs which they sell. Those who only sell these articles should be characterized as "glove dealer," "hat and cap dealer," "fur dealer."

Judges (state whether Federal or State, whether probate, police, or otherwise) may be assumed to be lawyers, and that addition, therefore, need not be given; but all other *officials* should have their profession designated, if they have any, as "retired merchant, governor of Massachusetts," "paper manufacturer, representative in legislature." If anything is to be omitted, leave out the office, and put in the occupation.

As far as possible distinguish machinists, as "locomotive builders," "engine builders," etc.

Instead of saying "packers," indicate whether you mean "pork packers" or "crockery packers," or "mule packers."

The organization of domestic service has not proceeded so far in this country as to render it worth while to make distinction in the character of work. Report all as "domestic servants."

Cooks, waiters, etc., in hotels and restaurants will be reported separately from domestic servants.

The term "housekeeper" will be reserved for such persons as receive distinct *wages* or *salary* for the service. Women keeping house for their own families or for themselves, without any other gainful occupation, will be entered as "keeping house." Grown daughters assisting them will be reported without occupation.

You are under no obligation to give any man's occupation just as he expresses it. If he can not tell intelligibly what it is, find out what he *does*, and characterize his profession accordingly.

The inquiry as to occupation will not be asked in respect to infants or children too young to take any part in production. Neither will the doing of domestic errands or family chores out of school be considered an occupation. "At home" or "attending school" will be the best entry in the majority of cases. But if a boy or girl, whatever the age, is earning money regularly by labor, contributing to the family support, or appreciably assisting in mechanical or agricultural industry, the occupation should be stated.

#### SCHEDULE 2.—MORTALITY.

Assisant marshals will not omit to *take out the schedule of Mortality* in the case of every family, and ask whether any deaths have occurred in the family within the twelve months ending June 1, 1870. Care should be taken to have it understood

that the period covered by the inquiry is from the 1st of June, 1869, to the 31st of May, 1870, inclusive; otherwise, many will understand by the phrase, "within the year," since January 1, 1870; or by the phrase, "last year," the year ending December 31, 1869. The deaths reported in previous enumerations have fallen far short of the total number known to have occurred. This is owing to the fact that assistant marshals have been indifferent on the subject, considering the compensation allowed for the service as not proportioned to the time consumed and the trouble caused. Assistant marshals will, however, understand that, in the present census, *the proportion between deaths and living inhabitants* will be carefully scrutinized, and whenever the ratio is such as to make it probable that considerable omissions from the table of mortality have occurred, *payment will be withheld* until inquiry—local, if necessary—has been made and the Department is satisfied that the work has been faithfully performed in this particular. This rule will be rigidly enforced in all cases.

All the explanations given in regard to schedule No. 1 apply to schedule No. 2, so far as the inquiries are common.

*Families.*—In column 1 will be entered the number which was given in column 2, schedule 1, to the family in which the death occurred. Hence the numbers of the families on schedule 2 will not be consecutive, as they are on schedule 1.

*Names.*—In column 2 will be entered the name of every person whose death occurred during the year ending June 1, 1870. The family *wherein the death occurred*, if from disease, will be considered the "Place of abode." Where, however, death was sudden or violent, and occurred outside of any habitation, the usual place of abode of the deceased will be given. If it should come to the knowledge of the assistant marshal that any violent or sudden deaths occurred within their subdivisions, under circumstances which rendered it reasonably certain that the deaths could not or would not be reported elsewhere, as, for example, of a vagrant, the death should be reported, with a statement of the fact, and with as much information in regard to age, sex, color, etc., as can be obtained. In such case, the deceased person will not be reported as of any family. Deaths which have occurred between the 1st of June and the day of the enumerator's visit will not be reported; but the person will be reported as living on the 1st of June.

*Married and widowed.*—Column 6 will only be filled where deceased was, at the time of death, either married or widowed. The letter "M" will be written for married; the letter "W" for widowed. The term widowed includes both widows and widowers.

*Parentage.*—The columns (8 and 9) headed "Father of foreign birth," "Mother of foreign birth," need only be filled when the answer is affirmative, in which case an affirmative mark, thus, /, will be drawn in the space.

*Diseases.*—The twelfth question, "Disease or cause of death," is the important question of this schedule. Especial pains will be taken to make the answers in this column ample and exact. State the character of the disease, or of the accident, as specifically as possible. The majority of cases will fall under a few simple and familiar heads, as Consumption, Typhoid fever, Cholera infantum. Whenever the disease is not familiar, more than common pains should be taken to ascertain the correct form of statement. It is only necessary that each assistant marshal should be at a few minutes' additional trouble in regard to each of a half dozen such cases, to remove nine-tenths of all the absurd and unnecessary terms which have heretofore embarrassed the work of compilation.

The following more specific directions and warnings should be carefully studied and observed:

Experience has shown an almost fatal facility on the part of persons making return of diseases to confound apoplexies, epileptics, and paralytics. Assistant marshals will assure themselves that they understand the difference between these diseases and that as far as possible the persons reporting them do.

It is desirable that distinction should be made between *acute* and *chronic* bronchitis, *acute* and *chronic* diarrhea, *acute* and *chronic* dysentery, *acute* and *chronic* rheumatism, as causes of death.

Cerebro-spinal meningitis should not be confounded with either brain or spinal disease.

Great caution should be exercised about reporting old age a cause of death. Wherever any defined disease was developed, let that be reported, and not old age.

Instead of reporting "*hemorrhage*" simply as the cause, the death should be assigned to consumption, to hemorrhage from the stomach, hemorrhage from the bowels, or hemorrhage resulting from gunshot wounds, etc., as the case may have been.

Death should not be attributed to "*intemperance*" where a distinct disease was developed, as delirium tremens, cirrhosis of the liver, or apoplexy.

If "*ulceration of intestines*" is due to typhoid fever, the latter should be given as the cause.

In reporting "*suicide*," distinguish the means, whether cutting of throat, drowning, shooting, poisoning, charcoal suffocation, or other.

"*Sudden death*" should only, in the rarest cases, be reported in this column. It is in this class of cases, generally speaking, that the real cause of death can be most easily and certainly determined.

"*Died of cold water*" is nearly as objectionable as "died of hemorrhage" or "died of intemperance."

"*Inflammation*" as cause of death is unsatisfactory. It should be "inflammation of brain, of stomach, of bowels, of peritoneum, of pleura," etc. So of "dropsy," whether of the heart, of the chest, of the abdominal cavity (ascites), etc.

The words "cancers," "ulcers," "carbuncles," and "tumors," should not be indiscriminately used in assigning cause of death.

Typhus, typhoid, and typhomalarial fevers should be carefully distinguished.

As few deaths as possible should be reported under such general terms as "disease of the throat," "disease of the brain," "disease of the liver," "disease of the lungs," "disease of the bowels," "disease of the spine," etc. These should, as far as possible, be reported under special heads. Disease of the liver should be reported as hepatitis, jaundice, etc.; disease of the heart as aneurism, valvular disease, hypertrophy, dropsy of pericardium, etc.

*Remarks.*—A space is left at the bottom of each page of this schedule for remarks. It is desired that the assistant marshals should there describe any particular malady or unusual or peculiar disease which has prevailed in the subdivision, and the supposed cause thereof. In case of any unusual number of deaths by violence or accident (as by the caving of a mine or similar calamity) an explanation should be given in the space for "Remarks."

Assistant marshals are authorized to add to the mortality lists of their subdivisions the names of all persons who are shown by the official records to have died within the subdivision during the year, but whose names have escaped them during the course of enumeration. This permission, however, only extends to *supplementing* the usual method of inquiry (by personal visit to each house) by means of official records. It will not allow of official records being *substituted* for personal inquiry. In all such cases, the facts of age, occupation, nativity, etc., must be obtained as required by the schedule.

Assistant marshals will, very likely, in the course of enumeration, find some physician who will be willing, out of public spirit and professional interest, to glance over the entire list of diseases and correct a defective classification. If the death has, within his knowledge, been assigned to a wrong cause, he will indicate the true one. Assistant marshals are authorized to submit this schedule to inspection for this purpose.

#### SCHEDULE 3.—AGRICULTURE.

"Farms," for the purposes of the agricultural schedule, include all considerable nurseries, orchards, and market gardens, which are owned by separate parties, which are cultivated for pecuniary profit, and employ as much as the labor of one able-bodied workman during the year. Mere cabbage and potato patches, family vegetable gardens, and ornamental lawns, not constituting a portion of a farm for general agricultural purposes, will be excluded. No farm will be reported of less than 3 acres, unless \$500 worth of produce has been actually sold off from it during the year. The latter proviso will allow the inclusion of many market gardens in the neighborhood of large cities, where, although the area is small, a high state of cultivation is maintained, and considerable value produced.

A farm is what is owned or leased by one man and cultivated under his care. A distant wood lot, or sheep pasture, even if in another subdivision, is to be treated as a part of the farm; but wherever there is a resident overseer, or a manager, there a farm is to be reported.

The amounts of the various crops will be estimated according to the best judgment of the proprietor or manager, where no exact account is kept.

By "Improved land" is meant cleared land used for grazing, grass, or tillage, or lying fallow.

Irreclaimable marshes and considerable bodies of water will be excluded in giving the area of a farm improved and unimproved.

In reporting live stock, columns 12, 13, and 14, sucking pigs, spring lambs, and calves will be omitted. Column 15 requires the total value of live stock of every description, whether enumerated in the preceding columns or not.

In the "Produce of the year" will be included the total of all crops, etc., whether consumed at home or sold off the farm.

By clover and grass seed is intended only that which has been cleared for use or prepared for market.

In reporting "Molasses, other than from cane," the letter "M" for maple, "S" for sorghum, will be inserted in the space above the figures denoting quantity.

Where hemp is prepared by water-rotting, the letters "W R" will be inserted in the space above the figures. Where no letters are inserted, dew-rotting will be understood. If any other process than these two is used in preparing the hemp reported, the fact will be indicated by a footnote.

Under "Homemade manufactures" is to be included the value of all articles manufactured on the farm, whether for home use or for sale, when the same has not been reported upon the "Products of industry" (schedule No. 4). The value of materials purchased for such manufactures will be deducted.

The total value of "Annual production," column 52, is intended to exhibit the total results of all the labor of the farm during the year, whether in the production of crops, in addition to stock, in fencing, or in improvements of any description, so far as the same are due to farm labor. Building, fencing, etc., by professional mechanics, will not be included. Neither will a speculative rise of land, nor an enhancement of values by the opening of railroads, etc., be reckoned in the "Annual production of the farm."

Great care will be taken, in reporting "Production," in every case to give the amount according to the unit of quantity prescribed by the printed form, as tons, pounds, bushels, etc.

#### SCHEDULE 4.—PRODUCTS OF INDUSTRY.

The term "productive industry" must be understood, in its largest significance, to include all manufacturing, mechanical, and mining operations, and also all coast, lake, and river fisheries. The smallest shop must not be omitted, provided the production reaches \$500 annually, *including the cost of materials*. It is believed that but few shops, which employ the entire labor of one able-bodied artisan, fall short of this limit at the present prices of labor. Assistant marshals will take pains to reach all the productive establishments, large and small, within their subdivisions. It is not necessary that there should be a distinct shop to constitute an establishment of productive industry in the meaning of the law. A room finished off in the barn, or a chest of tools kept in the corner of the house, may constitute a distinct establishment, *provided the artisan does not habitually work in any other shop which could be separately enumerated*. Assistant marshals will do well, therefore, when anyone reports his occupation (for the purposes of schedule No. 1) as a carpenter, blacksmith, plumber, painter, mason, or other skilled artisan, to ascertain by inquiry whether his labor is included in the production of any mechanical establishment; and, if not, *the place where he keeps his tools or does his work may be reported as an establishment of productive industry* for the purposes of the census. This rule only applies to the trades, and not to unskilled labor.

When large manufacturing corporations are part in one subdivision and part in another, they should be reported in that subdivision where the office is.

The products, etc., of manufacturing establishments will not be reported at their sales rooms, where there is an office in connection with the factory, where the account of materials, labor, and product is kept.

Where two establishments having each a distinct production, are owned by one and the same person, they will be separately reported, the name of the owner being repeated.

Where the same establishment carries on two successive processes of manufacturing, as, for example, when a forge and rolling mill, or a furnace and foundry, are united, the materials and productions of each will be separately given. It may be necessary, in such cases, to estimate in regard to the share of each portion of the establishment rather more freely than would be desirable in establishments of less complex production. It is desirable to have the facts of each distinct line of manufacture by themselves, so that the returns of every industrial interest may be tabulated without intermixture of others.

It is not believed to be necessary to explain at length the use of the word "materials" in respect to manufactures. It will be enough to say that what is the product of one establishment may become the material of another; as, iron ore is the product of the mine, but the material of the furnace, which produces iron in pigs, to become, again, the material of the foundry.

Each page of schedule 4 is divided into ten spaces, each intended to report one establishment. One line is drawn across the entire page, on which to report the name of the establishment, kind of product, labor employed, wages, etc., as well as

the kind, quantity, and value of the material consumed, and of the article produced, where the material and production are of only one kind each. *Additional lines* are drawn under the latter heads, for use in those cases where materials and products are of more than one kind. In case of very large establishments, with great variety of products, the space intended for two establishments may be taken.

In column 1 the name of the individual, or the style of the firm or corporation, should be written with sufficient fullness and distinctness to enable the census office to conduct such subsequent correspondence as may be necessary.

In column 2 the kind of business and character of product should be described as *specifically* as possible; as, for example, fishing hooks, hoisting apparatus, skirt supporters, speaking tubes, etc. General terms will be avoided, when specific and technical terms will cover the operations.

The cost of superintendence, rent, freight, and other general expenses of a manufacturing establishment are not to be included in "materials." "*Mill supplies*" and "*fuel*" should be included.

The statement of "kinds" and "quantities" of "materials" and of "products" is not required in the case of those mechanical establishments whose materials and productions are of a *minor and miscellaneous* character, such as carpenters' and blacksmiths' shops, small gun shops, etc.

When the production is *all of one kind*, it should be reported by kinds and quantities, no matter how small the amount.

*Every factory, every mill* of considerable size, must be enumerated in this way. To make the returns of "kinds" and "quantities" of any value, it is essential that they should conform to a distinct classification, so that the product of all establishments in the same line of business throughout the country can be added together. In the case of every establishment, the total value of all materials consumed, and of all products, alike those specified and those not specified, will be given in the proper columns for values.

The following tables exhibit the specifications of materials and products which it is desirable to have made in the case of certain of the larger industries of the country; also, the necessary forms for reporting the facts relative to power and machinery. So far as possible, enumerators will conform to this classification.

#### RESOURCE AND MACHINERY.

**RESOURCE.**—State whether power is obtained from steam, water, wind, horse, or hand. In salt works, state whether salt is obtained by solar evaporation or by boiling.

**MACHINERY.**—If steam power is used, state number of engines and aggregate horsepower. If water power, number of wheels and horsepower, or, if more convenient, state the diameter and width of the wheel, and the "head" and amount of water.

*In cotton mills.*—Number of looms; number of frame spindles; number of mule spindles.

*Print works.*—Number of print machines.

*Woolen mills.*—Number sets of cards; aggregate daily capacity in carded wool; number broad looms; number narrow looms; number spindles.

*Worsted mills.*—Number of combing machines of domestic make, and number of foreign make; number of knitting machines; number of spindles; number of looms; number of braidiers.

*Carpet mills.*—Number of handlooms; number power looms.

*Cordage factories.*—Number of spinning jennies.

*Paper mills.*—Number of paper engines; number of paper machines, and estimated maximum capacity in tons per day.

*Hat and cap establishments.*—Number of sewing machines.

*Boot and shoe factories.*—Number of pegging machines; number sewing machines.

*Iron foundries.*—Number of blast furnaces, with description and capacity.

*In grit and flouring mills.*—Number runs of stone, and estimated maximum capacity per day.

*In salt works.*—Number of vats, and aggregate area in square feet, if salt is obtained by solar evaporation. If by boiling, number of blocks, number of kettles, and aggregate capacity in gallons.

*Sawmills.*—Number of saws. If "gangs," state total number of saws.

#### MATERIALS.

*Cotton mills.*—Pounds of cotton.

*Print works.*—Cost of chemicals and dyestuffs; value of the cloth before printing.

*Woolen mills.*—Chemicals and dyestuffs; pounds of foreign wool (including goats' hair, camels' hair, etc., mohair, alpaca); pounds domestic wool; pounds shoddy; pounds cotton; worsted yarn bought for use.

*Carpet mills.*—Pounds of wool; pounds cotton; pounds flax.

*Hosiery mills.*—Pounds of cotton; pounds foreign wool; pounds domestic wool; pounds shoddy.

*Cordage factories.*—Tons of manila hemp; tons Russian hemp; tons American hemp; tons flax, tow, cotton, junk, jute, Sunn hemp, sisal grass, and other materials.

*Hat and cap factories.*—Pounds of wool; pounds fur; yards plush.

*Boot and shoe factories.*—Number of sides and value of sole leather; number of sides and value of upper leather; value of other leather used.

*Iron furnaces.*—Tons of iron ore used; tons anthracite coal; bushels bituminous coal; bushels charcoal.

*Iron foundries.*—Tons of pig metal; tons coal.

*Rolling mills and forges.*—Tons of blooms; tons pig metal; tons ore; tons coal.

*Steel works.*—Tons of blooms; tons pig iron; tons bar iron; tons scrap iron; tons of coal.

*Paper mills.*—Tons of domestic rags; tons foreign rags; old paper; cotton waste; manila stock; straw; corn stock; Esparto grass; cords poplar wood; other wood; other material for pulp; cost of all chemicals.

*Grist and flouring mills.*—A distinction must be made between what is ground for private owners and what is ground on personal venture. Where mills do both, the business in each will, if possible, be reported separately.

If "ground for owners," give bushels of grain; tons of dyewoods; bushels of salt; tons of lime, with the value before and after grinding. If "ground on personal venture," give bushels of grain, etc., ground as material; and for product, the barrels of flour, bushels of rye, corn meal, etc.

*Salt works.*—Tons of coal; cords wood.

*Gas works.*—Tons of American coal; tons foreign coal; casks lime; pounds sulphate of iron.

#### PRODUCT.

*Cotton mills.*—Yards of sheetings and shirtings and twilled goods; yards of lawns and fine muslins; yards of printing cloths; pounds of yarn not woven; dozens of spool thread; yards of warps; pounds of batts, wicking, and wadding; number of tablecloths, quilts, and counterpanes; number and pounds of seamless bags; pounds of cordage, lines, and twines; pounds of miscellaneous articles; total pounds produced.

*Print works.*—Number of yards of cloth printed; value when printed.

*Woolen mills.*—Yards of cloth, cassimeres, and doeskins; pounds yarn; pairs blankets; number shawls; dozens hosiery; yards felted cloth; yards flannels. Mixed goods: Yards satinets; yards linseys; yards kerseys; yards jeans; yards negro cloths; value of miscellaneous articles.

*Worsted mills.*—Yards of mousseline de laines; yards cashmeres and Coburgs; yards Orleans coatings and poplins; yards alpacas; yards "all worsted" dress goods; yards other worsted dress goods; number woven shawls; yards balmorals; yards bunting and lasting; pounds of yarn for carpets and hosiery; pounds of braids and lacings; value of fancy goods, ladies' hoods, and knit shawls.

*Carpet mills.*—Yards of Wilton carpeting; yards Brussels; yards Venetian; yards velvet; yards three-ply ingrain; yards two-ply ingrain; yards felt carpeting; yards druggets and rugs.

*Hosiery mills.*—Dozens pairs of hose and half hose; dozens drawers, shirts, and jackets; dozens opera hoods and scarfs; pairs gloves and mittens; yards of stockinet; value of miscellaneous articles.

*Cordage factories.*—Pounds manila rope; pounds other rope; pounds shoe thread; pounds fishing and clothes lines and bedcord; pounds twine and thread; pounds oakum.

*Hats and caps.*—Dozens hat bodies (not made up); number silk hats; dozens fur, felt, or wool hats; dozens caps.

*Boot and shoe factories.*—Number pairs of boots (for men's, youths', boys', and children's wear); number pairs shoes (for men's, youths', boys', women's, misses', and children's wear).

*Iron furnaces.*—Tons of pig iron; tons castings; tons malleable iron.

*Iron foundries.*—Number of car wheels; running feet of iron railing; number hot-air furnaces; number cooking ranges; number stoves; value of all hollow ware; value of malleable iron castings.

*Rolling mills and forges.*—Tons of bar iron; tons of galvanized iron; tons of boiler and nail plate; tons of sheet iron; tons of wire, rod, tire, and other iron; tons railroad iron; tons of anchors and chains; tons of rivets; tons nails; tons spikes; tons of blooms; tons miscellaneous products.

*Steel works.*—Tons of cast or shear steel; tons puddled or blistered steel; tons Bessemer steel.

*Paper mills.*—Tons of printing paper; tons writing paper; tons wrapping paper; tons straw pasteboard; pounds colored paper; tons wall paper; pounds bank-note paper; pounds other paper.

*Gas works.*—Cubic feet of gas; pounds coal tar; bushels coke.

*Iron-bridge and roof-building establishments.*—Number of railroad bridges; average span and aggregate length; number highway and other bridges; average span and aggregate length; number buildings roofed, and total superficies of roof.

## MINING.

All mining and quarrying industries must be reported upon schedule 4, for the "Products of Industry."

The following rules will be particularly observed:

Distinguish between mines or quarries and reduction works, making separate returns for each class, whether owned by different parties or not.

*Mines and quarries.*—Under "Machinery," state number of steam or hydraulic engines, and total horsepower. If water is used, number of water wheels and horsepower (or, if more convenient, the diameter and width of wheel and head, and amount of water); horse whims; machinery of ventilation, pumping, transportation, and the mechanical preparation of product, *e. g.*, coal breakers, washers, or other crushing, cleaning, and concentrating machines in use at the mine. Also state greatest depth of mine, or greatest length of tunnel.

Under "Labor," distinguish between *above ground* and *underground*.

Under "Materials," give powder or other explosives, timber and steel consumed, and fuel for machinery.

Under "Product," give total tons of rock removed, and the tons of ore included in that amount, with the value of the same.

*Reduction works.*—Under "Machinery," report crushers, stamps, amalgamators, settlers, pans, etc. Furnaces, their number and character.

Under "Materials," state tons of ore, cost of fuel, total value of chemicals, amalgams, and machinists' supplies.

Under "Product," state kinds, quantities, and values of metals produced, regulus or salable by-products.

## SCHEDULE 5.—SOCIAL STATISTICS.

The collection of "social statistics," schedule 5, is, by the law of 1850, made an exception to the rule which governs in respect to the other schedules. All the materials for schedules 1, 2, 3, and 4 must be obtained by the personal inquiry of the assistant marshal at each house, farm, shop, etc., of his subdivision. The social statistics, on the other hand, may be obtained, as far as possible, from official documents, from the published reports or the manuscript records of schools, colleges, prisons, asylums, etc. When such reports or records are not found, or are insufficient for the demands of the schedule, the information may, in perhaps the majority of cases, be obtained by correspondence. Marshals are therefore allowed at their discretion to appoint deputy marshals for the collection of social statistics. Such appointments do not constitute an interference with the duties of *assistant* marshals (sec. 7, act of May 23, 1850). One or more deputy marshals may be allowed to collect social statistics of an entire district or state, and will receive all the compensation allowed by law for the service.

If, on the other hand, marshals do not choose to avail themselves of this provision, the statistics for schedule 5 will, as for the other schedules, be obtained by the personal visitation and inquiry (or by such correspondence to that end as may be deemed necessary) of each assistant marshal within his own field; or of such one of the assistant marshals within a county (where there is more than one subdivision) as may be designated by the marshal to perform that duty.

In case *deputy* marshals are appointed for the purpose, all *assistant* marshals will be notified that they are relieved from that work. In case certain assistant marshals only are appointed to the service, the remaining assistants will be duly notified.

Where deputy marshals for an entire state or district are appointed to take the social statistics, they will make their returns by counties, sending a separate schedule for each county, containing all the facts relating to that county, except where it shall be possible to *report cities of considerable size by themselves*.

Where one assistant within a county is appointed to this service, he will make his return upon a single schedule for the entire county.

Where this service is left to each assistant marshal within his own subdivision (where the same is less than a county), great care will be taken to avoid duplications

or omissions. The "Taxes," the "Churches," the "Libraries," etc., returned, will be those only which properly belong to *that portion* of the county which the individual assistant marshal is set to enumerate.

It is believed that the requirements of this schedule (5) are sufficiently clear to be understood without explanations in detail of the several inquiries contained.

### CENSUS OF 1880.

SCHEDULE 1.—INHABITANTS in ....., in the County of ....., State of ....., enumerated by me on the ..... day of June, 1880. ...., Enumerator.

Supervisor's district No. —; Enumeration district No. —.

In cities: Name of street; house number.

1. Dwelling houses numbered in order of visitation.
2. Families numbered in order of visitation.
3. The name of each person whose place of abode, on the 1st day of June, 1880, was in this family.

Personal description:

4. Color—White, W; black, B; Mulatto, Mu; Chinese, C; Indian, I.
5. Sex—Male, M; female, F.
6. Age at last birthday prior to June 1, 1880. If under 1 year, give months in fractions, thus: 3/12.
7. If born within the census year, give the month.
8. Relationship of each person to the head of this family—whether wife, son, daughter, servant, boarder, or other.

Civil condition:

9. Single.
10. Married.
11. Widowed; divorced.
12. Married during census year.

Occupation:

13. Profession, occupation, or trade of each person, male or female.
14. Number of months this person has been unemployed during the census year.

Health:

15. Is the person (on the day of the enumerator's visit) sick or temporarily disabled, so as to be unable to attend to ordinary business or duties?  
If so, what is the sickness or disability?
16. Blind.
17. Deaf and dumb.
18. Idiotic.
19. Insane.
20. Maimed, crippled, bedridden, or otherwise disabled.

Education:

21. Attended school within the census year.
22. Can not read.
23. Can not write.

Nativity:

24. Place of birth of this person, naming State or Territory of United States, or the country, if of foreign birth.
25. Place of birth of the father of this person, naming the State or Territory of United States, or the country, if of foreign birth.
26. Place of birth of the mother of this person, naming the State or Territory of United States, or the country, if of foreign birth.

NOTE A.—The census year begins June 1, 1879, and ends May 31, 1880.

NOTE B.—All persons will be included in the enumeration who were living on the 1st day of June, 1880. No others will. Children born since June 1, 1880, will be omitted. Members of families who have died since June 1, 1880, will be included.

NOTE C.—Questions Nos. 13, 14, 22, and 23 are not to be asked in respect to persons under 10 years of age.

NOTE D.—In making entries in columns 9, 10, 11, 12, 16 to 23 an affirmative mark only will be used—thus /, except in the case of divorced persons, column 11, when the letter "D" is to be used.

NOTE E.—Question No. 12 will only be asked in cases where an affirmative answer has been given either to question 10 or to question 11.

NOTE F.—Question No. 14 will only be asked in cases when a gainful occupation has been reported in column 13.

NOTE G.—In column 7 an abbreviation in the name of the month may be used, as Jan., Apr., Dec.

## INSTRUCTIONS TO ENUMERATORS.

DEPARTMENT OF THE INTERIOR, CENSUS OFFICE,  
May 1, 1880.

Under the provisions of the act approved March 3, 1879, amended by the act approved April 20, 1880, a census of the population, wealth, and industry of the United States is to be taken on, or of the date, June 1, 1880. The period of enumeration is by law limited to the month of June, and in cities having 10,000 inhabitants and over, according to the census of 1870, is still further limited to the first two weeks of June.

One hundred and fifty supervisors of census have been, or will be, appointed; one or more for each State or Territory.

The supervisor of census is by law charged with the following duties:

First. To propose to the Superintendent of the Census the apportionment of his district into subdivisions most convenient for the purpose of enumeration. These subdivisions are not allowed by law to exceed 4,000 inhabitants, according to the census of 1870, and can be made as much smaller as the good of the service may require. Administratively, the census office has favored the plan of small subdivisions; and of the 15,000 subdivisions reported up to the present date, the average estimate of population is not in excess of 2,000. Generally speaking, each existing civil division, whether a town, township, military district, "beat," or precinct, has been constituted one or more enumeration districts. In comparatively few cases two townships or more, of small population, have been constituted one enumeration district. It is anticipated that the total number of enumeration districts for all the States and Territories will be closely in the neighborhood of 28,000.

Second. To designate to the census office suitable persons, and, with the consent of the superintendent, to employ such persons as enumerators—one for each subdivision. It is provided by law that enumerators shall be selected solely with reference to their fitness, and without regard to their political or party affiliations. Enumerators are required to be residents of their respective districts, with the following exception, to wit: That "in case it should occur in any enumeration district that no person qualified to perform, and willing to undertake, the duties of enumerator resides in that district, the supervisor may appoint any fit person, resident in the county, to be an enumerator in that district."

Third. To transmit to enumerators the printed forms and schedules issued by the census office, in quantities suited to the requirements of each subdivision.

Fourth. To communicate to enumerators the necessary instructions and directions relating to their duties, and to the methods of conducting the census, and to advise with and counsel enumerators in person and by letter, as freely and fully as may be required.

Fifth. To provide for the early and safe transmission to his office of the returns of enumerators, embracing all the schedules filled by them in the course of the enumeration, and for the due receipt and custody of such returns pending their transmission to the census office.

Sixth. To examine and scrutinize the returns of enumerators, in order to ascertain whether the work has been performed in all respects in compliance with the provisions of law, and whether any town or village or integral portion of the district has been omitted from enumeration.

Seventh. To forward to the Superintendent of the Census the completed returns of his district in such time and manner as shall be prescribed by the said superintendent, and in the event of discrepancies or deficiencies appearing in the returns from his district, to use all diligence in causing the same to be corrected or supplied.

Eighth. To make up and forward to the Superintendent of the Census the accounts required for ascertaining the amount of compensation due under the provisions of this act to each enumerator of his district.

## APPOINTMENTS OF ENUMERATORS.

Each enumerator will receive from the supervisor of his district a commission signed by said supervisor, and bearing the approval of the Superintendent of the Census, authorizing him to perform all the duties and exercise all the functions of enumerator under the law. Upon the receipt of his commission (which should be promptly acknowledged to the supervisor on Form 7-333), the enumerator will proceed to take and execute the oath required by section 7 of the act approved March 3, 1879, as amended by section 6 of the act approved April 20, 1880. A printed form of oath (7-174) will accompany each commission, upon which will be found full instructions

relative to the taking and certifying of the same. Enumerators must strictly comply with the requirements therein contained.

The oath, duly filled, subscribed, and certified to, will then be forwarded to the supervisor, who will transmit the same to the census office. Enumerators should distinctly understand that, by accepting their commissions and qualifying thereunder, they bind themselves to carry the work on to completion, unless prevented by reasonable cause from doing so. They can not throw up the work from dissatisfaction or indolence.

#### DUTIES OF ENUMERATORS.

It is by law made the duty of each enumerator, after being duly qualified as above, to visit personally each dwelling in his subdivision, and each family therein, and each individual living out of a family in any place of abode, and by inquiry made of the head of such family, or of the member thereof deemed most credible and worthy of trust, or of such individual living out of a family, to obtain each and every item of information and all the particulars required by the act of March 3, 1879, as amended by act of April 20, 1880.

By individuals living out of families is meant all persons occupying lofts in public buildings, above stores, warehouses, factories, and stables, having no other usual place of abode; persons living solitary in cabins, huts, or tents; persons sleeping on river boats, canal boats, barges, etc., having no other usual place of abode, and persons in police stations having no homes. Of the classes just mentioned, the most important, numerically, is the first, viz: those persons, chiefly in cities, who occupy rooms in public buildings, or above stores, warehouses, factories, and stables. In order to reach such persons, the enumerator will need not only to keep his eyes open to all indications of such casual residence in his enumeration district, but to make inquiry both of the parties occupying the business portion of such buildings and also of the police. A letter will be addressed from this office to the mayor of every large city of the United States, requesting the cooperation of the police, so far as it may be necessary to prevent the omission of the classes of persons herein indicated.

It is further provided by law that in case no person shall be found at the usual place of abode of such family, or individual living out of a family, competent to answer the inquiries made in compliance with the requirements of the act, then it shall be lawful for the enumerator to obtain the required information, as nearly as may be practicable, from the family or families, or person or persons, living nearest to such place of abode.

It is the prime object of the enumeration to obtain the name, and the requisite particulars as to personal description, of every person in the United States, of whatever age, sex, color, race, or condition, with this single exception, viz: that "Indians not taxed" shall be omitted from the enumeration.

#### INDIANS.

By the phrase "Indians not taxed" is meant Indians living on reservations under the care of Government agents, or roaming individually, or in bands, over unsettled tracts of country.

Indians not in tribal relations, whether full-bloods or half-breeds, who are found mingled with the white population, residing in white families, engaged as servants or laborers, or living in huts or wigwams on the outskirts of towns or settlements are to be regarded as a part of the ordinary population of the country for the constitutional purpose of the apportionment of Representatives among the States, and are to be embraced in the enumeration.

#### SOLDIERS.

All soldiers of the United States Army, and civilian employees, and other residents at posts or on military reservations will be enumerated in the district in which they reside, equally with other elements of the population.

#### COURTESY ON THE PART OF ENUMERATORS.

It is the duty of an enumerator, in the exercise of his authority to visit houses and interrogate members of families resident therein as provided by law, to use great courtesy and consideration. A rude, peremptory, or overbearing demeanor would not only be a wrong to the families visited, but would work an injury to the census by rendering the members of those families less disposed to give information with fullness and exactness. It would doubtless be found in the long run to be an injury to the enumerator himself and to retard his work.

By the above remark it is not intended to imply that the enumerator need enter into prolix explanations, or give time to anything beyond the strictly necessary work of interrogation. It is entirely possible for the enumerator to be prompt, rapid, and decisive in announcing his object and his authority, and in going through the whole list of questions to be proposed, and at the same time not to arouse any antagonism or give any offense.

#### THE OBLIGATION TO GIVE INFORMATION.

It is not within the choice of any inhabitant of the United States whether he shall or shall not communicate the information required by the census law. By the fourteenth section of the act approved March 3, 1879, it is provided:

"That each and every person more than twenty years of age, belonging to any family residing in any enumeration district, and in case of the absence of the heads and other members of any such family, then any agent of such family, shall be, and each of them hereby is, required, if thereto requested by the superintendent, supervisor, or enumerator, to render a true account, to the best of his or her knowledge, of every person belonging to such family in the various particulars required by law, and whoever shall willfully fail or refuse shall be guilty of a misdemeanor, and upon conviction thereof shall forfeit and pay a sum not exceeding one hundred dollars."

Enumerators will, however, do well not unnecessarily to obtrude the compulsory feature of the enumeration. It will be found in the vast majority of cases that the persons called upon to give information will do so without objection or delay. No people in the world are so favorably disposed toward the work of the census as the people of the United States. With the high degree of popular intelligence here existing, the importance of statistical information is very generally appreciated; and if the enumerator enters upon his work in a right spirit, he will generally meet with a favorable and even a cordial response.

It is only where information required by law is refused that the penalties for non-compliance need be adverted to. The enumerator will then quietly, but firmly, point out the consequences of persistency in refusal. It will be instructive to note that at the census of 1870 the agents of the census in only two or three instances throughout the whole United States found it necessary to resort to the courts for the enforcement of the obligation to give information as required by the census act.

It is further to be noted that the enumerator is not required to accept answers which he knows, or has reason to believe, are false. He has a right to a true statement on every matter respecting which he is bound to inquire; and he is not concluded by a false statement. Should any person persist in making statements which are obviously erroneous, the enumerator should enter upon the schedule the facts as nearly as he can ascertain them by his own observation or by inquiry of credible persons.

The foregoing remark is of special importance with reference to the statements of the heads of families respecting afflicted members of their households. The law requires a return in the case of each blind, deaf and dumb, insane or idiotic, or crippled person. It not infrequently happens that fathers and mothers, especially the latter, are disposed to conceal, or even to deny, the existence of such infirmities on the part of children. In such cases, if the fact is personally known to the enumerator, or shall be ascertained by inquiry from neighbors, it should be entered on the schedules equally as if obtained from the head of the family.

A second class of cases under this head concerns the reporting of the values produced in agricultural or other occupations. The enumerator is not bound by any statement which he knows or has reason to believe to be false. His duty is to report the actual facts as nearly as he can ascertain them.

The enumerator is prohibited by law from delegating to any other person his authority to enter dwellings and to interrogate their inhabitants. The work of enumeration must be done by the enumerator in person, and can not be performed by proxy.

#### CARE IN FILLING SCHEDULES.

In making the entries, whether of names or figures, upon the schedules, enumerators should be careful to write clearly and neatly, without interlineations, erasures, or blots, inasmuch as no copy of the schedules is provided to be made by the existing census law, and the original schedules are to be returned to the census office at Washington for examination and compilation. Great care should also be exercised in making the entries upon the proper line and in the proper column. A little heedlessness in this respect will often produce the most serious confusion. The schedules to be used at the tenth census have been arranged to help the enumerator to find the

## 170 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

proper place and column through the use of occasional heavy lines, both horizontal and vertical, by which the eye may be guided to find, easily and surely, the true place of entry.

The schedules, in number deemed sufficient for the enumeration, will be sent to enumerators in portfolios, designed to be used in the enumeration. So far as possible, the schedules should be kept habitually in the portfolios until the enumeration is finished, and then sent, in the portfolios, to the supervisor of the district. The portfolios will be cased in cotton sacks for greater security in transmission through the mails.

### SCHEDULES.

Five regular schedules are created by law for the enumeration of the several subjects of inquiry at the census, as follows:

Schedule 1.—Population [Census office Form 7-296].

Schedule 2.—Agriculture [Census office Form 7-306].

Schedule 3.—Manufactures [Census office Form 7-261].

Schedule 4.—Social Statistics.

Schedule 5.—Mortality [Census office Form 7-222].

In the exercise of the authority conferred by section 18 of the act of March 3, 1879, the superintendent has determined to withdraw Schedule 4—Social Statistics—entirely from the enumerators, and to collect all the statistics therein required to be taken through special agents and experts.

So far as yet appointed, these special agents are:

Pauperism and Crime.—Fred. H. Wines, Springfield, Ill.

Wealth, Debt, and Taxation.—Robert P. Porter, Chicago, Ill.

Churches, Libraries, and Schools.—Henry Randall Waite, New York.

This has been done partly as a relief to the regular enumerators, the statistics required by that schedule being of a very complicated and difficult nature, and the compensation heretofore allowed by law very inadequate to the labor involved in their collection, and partly with a view to the improvement of the statistics to be obtained through the employment of officers specially conversant with the several subjects concerned. The regular schedules, therefore, to be carried about by the enumerators, in their house-to-house and farm-to-farm canvass of their districts, are reduced to four, viz: Schedule 1, Population; Schedule 2, Agriculture; Schedule 3, Manufactures; Schedule 5, Mortality. As the notes upon the schedules themselves contain explanations and directions for use, it is not necessary here to speak of them much at length.

### SCHEDULE No. 1 [7-296].—POPULATION.

This is the population or family schedule. Upon it is to be entered, as previously noted, the name of every man, woman, and child who, *on the 1st day of June, 1880*, shall have his or her "usual place of abode" within the enumerator's district. No child born between the 1st day of June, 1880, and the day of the enumerator's visit (say June 5 or 15 or 25) is to be entered upon the schedule. On the other hand, every person who was a resident of the district upon the 1st day of June, 1880, but between that date and the day of the enumerator's visit shall have died, should be entered on the schedule precisely as if still living. The object of the schedule is to obtain a list of the inhabitants *on the 1st of June, 1880*, and all changes after that date, whether in the nature of gain or of loss, are to be disregarded in the enumeration.

### DWELLING HOUSES.

In column No. 1 of this schedule is to be entered the number of the dwelling house in the order of visitation. A dwelling house, for the purpose of the census, means any building or place of abode, of whatever character, material, or structure, in which any person is at the time living, whether in a room above a warehouse or factory, a loft above a stable or a wigwam on the outskirts of a settlement, equally with a dwelling house in the usual, ordinary sense of that term. Wholly uninhabited dwellings are not to be taken notice of.

### FAMILIES.

In the column numbered 2 is to be entered the number, in the order of visitation, of each family residing in the district. The word family, for the purposes of the census, includes persons living alone, as previously described, equally with families in the ordinary sense of that term, and also all larger aggregations of people having

only the tie of a common roof and table. A hotel, with all its inmates, constitutes but one family within the meaning of this term. A hospital, a prison, an asylum is equally a family for the purposes of the census. On the other hand, the solitary inmate of a cabin, a loft, or a room finished off above a store constitutes a family in the meaning of the census act. In the case, however, of tenement houses and of the so-called "flats" of the great cities, as many families are to be recorded as there are separate tables.

## NAMES.

In column numbered 3 is to be entered the name of every person whose "usual place of abode" on the 1st day of June, 1880, was in that family.

The census law furnishes no definition of the phrase, "usual place of abode;" and it is difficult, under the American system of a protracted enumeration, to afford administrative directions which will wholly obviate the danger that some persons will be reported in two places and others not reported at all. Much must be left to the judgment of the enumerator, who can, if he will take the pains, in the great majority of instances satisfy himself as to the propriety of including or not including doubtful cases in his enumeration of any given family. In the cases of boarders at hotels or students at schools or colleges, the enumerator can, by one or two well-directed inquiries, ascertain whether the person concerning whom the question may arise has, at the time, any other place of abode within another district at which he is likely to be reported. Seafaring men are to be reported at their land homes, no matter how long they may have been absent, if they are supposed to be still alive. Hence, sailors temporarily at a sailors' boarding or lodging house, if they *acknowledge any other home within the United States*, are not to be included in the family of the lodging or boarding house. Persons engaged in internal transportation, canal men, express men, railroad men, etc., if they habitually return to their homes in the intervals of their occupations, will be reported *as of their families*, and not where they may be temporarily staying on the 1st of June, 1880.

In entering names in column 3, the name of the father, mother, or other ostensible head of the family (in the case of hotels, jails, etc., the landlord, jailer, etc.) is to be entered first of the family. The family name is to be written first in the column, and the full *first or characteristic* Christian or "given" name of each member of the family in order thereafter. It is desirable that the children of the family proper should follow in the order of their ages, as will naturally be the case. So long as the family name remains the same for the several members, it need not be repeated, provided a distinct horizontal line or dash be drawn in the place it would occupy, thus:

Smith, John.  
———, Elizabeth.  
———, J. Henry.

## PERSONAL DESCRIPTION.

The columns 4, 5, and 6, which relate to age, sex, and color, must in every case be filled. No return will be accepted where these spaces are left blank.

*Ages.*—The exact age in figures will be inserted in column 6 whenever the same can be obtained; otherwise, the nearest approximation thereto. Children who, on the 1st of June, 1880, were less than a year old, will have their age stated by the fractional part of the year, as (one month),  $1/12$ ; (three months),  $3/12$ ; (nine months),  $9/12$ , etc. In all other cases months will be omitted.

*Color.*—It must not be assumed that, where nothing is written in this column, "white" is to be understood. The column is always to be filled. Be particularly careful in reporting the class *mulatto*. The word is here generic, and includes quadroons, octoroons, and all persons having any perceptible trace of African blood. Important scientific results depend upon the correct determination of this class in schedules 1 and 5.

## OCCUPATION.

In the column numbered 13 is to be reported the occupation of each person 10 years of age and upward.

*Occupation.*—The inquiry "profession, occupation, or trade," is one of the most important questions of this schedule. "Make a study of it. Take especial pains to avoid unmeaning terms, or such as are too general to convey a definite idea of the occupation. Call no man a "factory hand," or a "mill operative." State the kind of a mill or factory. The better form of expression would be, "Works in a cotton

mill," "Works in paper mill," etc. Do not call a man a "shoemaker," "bootmaker," unless he makes the entire boot or shoe in a small shop. If he works in (or for) a boot and shoe factory, say so.

Do not apply the word "jeweler" to those who make watches, watch chains, or jewelry in large manufacturing establishments.

Call no man a "commissioner," a "collector," an "agent," an "artist," an "overseer," a "professor," a "treasurer," a "contractor," or a "speculator," without further explanation.

When boys are entered as apprentices, state the trade they are apprenticed to, as "apprenticed to carpenter," "apothecary's apprentice." Students or scholars should be reported under those names.

When a lawyer, a merchant, a manufacturer, has retired from practice or business, say "retired lawyer," "retired merchant," etc. Distinguish between fire and life insurance agents.

When clerks are returned, describe them as "clerk in store," "clerk in woolen mill," "R. R. clerk," "bank clerk," etc.

Describe no man as a "mechanic," if it is possible to describe him more accurately.

Distinguish between stone masons and brick masons.

Do not call a bonnet maker a bonnet manufacturer, a lace maker a lace manufacturer, a chocolate maker a chocolate manufacturer. Reserve the term "manufacturer" for proprietors of establishments; always give the *branch* of manufacture, as cotton manufacturer, woolen manufacturer, etc.

Whenever merchants or traders can be reported under a single word expressive of their special line, as "grocer," it should be done. Otherwise, say dry goods merchant, coal dealer, etc.

Use the word "huckster" in all cases where it applies.

Be very particular to distinguish between farmers and farm laborers. In agricultural regions this should be one of the points to which the enumerator should especially direct his attention.

Confine the use of the words "glover," "hatter," and "furrier" to those who *actually make*, or make up, in their own establishments, all, or a part, of the gloves and hats or furs which they sell. Those who only sell these articles should be characterized as "glove dealer," "hat and cap dealer," "fur dealer."

Judges (state whether Federal or state, whether probate, police, or otherwise) may be assumed to be lawyers, and that addition, therefore, need not be given; but all other *officials* should have their profession designated, if they have any, as "retired merchant, governor of Massachusetts," "paper manufacturer, representative in legislature." If anything is to be omitted, leave out the office and put in the occupation.

The organization of domestic service has not proceeded so far in this country as to render it worth while to make distinction in the character of work. Report all as "domestic servants."

Cooks, waiters, etc., in hotels and restaurants will be reported separately from domestic servants, as "cook in hotel," etc.

The term "housekeeper" will be reserved for such persons as receive distinct *wages* or *salary* for the service. Women keeping house for their own families or for themselves, without any other gainful occupation, will be entered as "keeping house." Grown daughters assisting them will be reported without occupation.

You are under no obligation to give any man's occupation just as he expresses it. If he can not tell intelligibly what it *is*, find out what he *does* and characterize his profession accordingly.

The inquiry as to occupation will not be asked in respect to infants or children too young to take any part in production. Neither will the doing of domestic errands or family chores out of school be considered an occupation. "At home" or "attending school" will be the best entry in a majority of cases. But if a boy or girl, whatever the age, is earning money regularly by labor, contributing to the family support, or appreciably assisting in mechanical or agricultural industry, the occupation should be stated.

#### PLACE OF BIRTH.

In column numbered 24 is to be reported the "Place of birth" of every person named upon the schedule. If born within the United States the State or Territory will be named, whether it be the State or Territory in which the person is at present residing or not. If of foreign birth, the country will be named as specifically as possible. Instead of writing "Great Britain" as the place of birth, give the particular country, as England, Scotland, Wales. Instead of "Germany" specify the State, as Prussia, Baden, Bavaria, Wurtemberg, Hesse-Darmstadt, etc.

## CIVIL DIVISIONS.

In filling schedule 1 the enumerator should begin each township (if there be more than one in a district), borough, etc., with a new page. The population of villages within townships should be carefully distinguished on the schedules. The population of such a village should, in all cases, begin with a new page; and when the inhabitants of a village have all been entered the remainder of the page should be left blank, except with the remark "Here ends the village of —."

So far as possible the population of small unincorporated villages and hamlets should be separately reported, as in the cases of incorporated villages and boroughs.

Wherever an institution is to be enumerated, as a hospital, an asylum, an almshouse, a jail, or a penitentiary, the enumerator will leave three lines blank, and enter the name of the institution (as "St. Mary's Hospital," "Protestant Orphan Asylum," "Insane asylum," "City jail," etc.) above the names of the inmates. All persons having their "usual place of abode" in such institutions, whether officers, attendants, beneficiaries, or persons in confinement, should then be entered consecutively on the schedules, and at the close of the list another space of three lines should be left blank.

## NUMBERING PAGES.

Each enumerator will number the pages of his population schedules in exact order as filled, and when filled: the first page (A) of the first sheet must be numbered 1; the second page of that sheet (B) 2, the third page (C) 3, the fourth page (D) 4, the first page of the second sheet 5, the first page of the third sheet 9, and so on throughout his entire subdivision.

The enumerator should never place one sheet with another, but fill always the four pages of one sheet (in the order of the letters A, B, C, D) before making any entries on the next sheet.

## STREETS AND STREET NUMBERS IN CITIES.

The first two columns (not numbered in series) on the population schedule require the entry, in cities, of the street and street number of each occupied dwelling house. The name of the street should be written lengthwise of the space.

## SCHEDULE 2 [7-306].—AGRICULTURE.

"Farms," for the purpose of the agricultural schedule, include all considerable nurseries, orchards, and market gardens which are owned by separate parties, which are cultivated for pecuniary profit, and employ as much as the labor of one able-bodied workman during the year. Mere cabbage and potato patches, family vegetable gardens, and ornamental lawns, not constituting a portion of a farm for general agricultural purposes, will be excluded. No farm will be reported of less than 3 acres, unless \$500 worth of produce has been actually sold off from it during the year. The latter proviso will allow the inclusion of many market gardens in the neighborhood of large cities, where, although the area is small, a high state of cultivation is maintained and considerable value produced.

A farm is what is owned or leased by one man and cultivated under his care. A distant wood lot, or sheep pasture, even if in another subdivision or district, is to be treated as a part of the farm; but wherever there is a resident overseer, or a manager, there a farm is to be reported.

The amounts of the various crops will be estimated according to the best judgment of the proprietor or manager where no exact account is kept.

## SCHEDULE 3 [7-261].—MANUFACTURES.

By the eighteenth section of the act of March 3, 1879, the Superintendent of Census is authorized to withdraw the manufacturing schedules from the enumerators, and to charge the collection of these statistics upon experts and special agents, to be employed without respect to locality. Under the authority thus conferred, the superintendent has decided to withdraw the manufacturing schedules from the regular enumerators in two classes of cases:

First. For certain industries, which are usually pursued in large establishments, special agents have been appointed, one for each such industry, to collect the statistics of the industry throughout the whole United States, whether in cities and towns or in rural districts. The industries thus selected for such canvass, with the names of the special agents charged with the same, are:

Manufactures of Cotton.—Edward Atkinson, of Boston, Mass.

Manufactures of Iron and Steel.—James M. Swank, of Philadelphia.

Manufactures of Woolen and Worsted Goods.—George Wm. Bond, of Boston, Mass.

Coke.—Joseph D. Weeks, of Pittsburg, Pa.

Glass.—Joseph D. Weeks, of Pittsburg, Pa.

Shipbuilding.—[Agent not yet appointed.]

The Manufacture of Silk and Silk Goods.—William C. Wyckoff, of New York.

Distilleries and Breweries.—[Agent not yet appointed.]

The Fisheries.—Prof. G. Brown Goode, of Washington, D. C.

Mining, in all its branches, which includes the production of Coal and of Petroleum—

West of the Mississippi River, Hon. Clarence King, Director of the United States Geographical Survey.

East of the Mississippi River, Prof. Raphael Pumpelly.

The only exception to the foregoing statement will be made in the case of a few counties where the mining of coal is carried on upon a small scale. In these counties the statistics of coal mines will be collected by the regular enumerators in their several districts. The enumerators will be specially informed and instructed in this matter; and any enumerator failing to receive such instructions need take no account of the operations or production of coal mines within his district; and with this single exception no enumerator (unless he shall also have been commissioned as a special agent) will take account of any of the herein-mentioned branches of productive industry.

Secondly. In the cases of all cities and towns having 8,000 inhabitants and over by the census of 1870, special agents will be appointed to collect the statistics of manufactures. No enumerator of such town or city, unless actually appointed and commissioned as a special agent of this office, for this purpose, will be charged with the collection of the statistics of manufactures.

With the two general exceptions indicated, the statistics of manufactures will be collected by the regular enumerators each in his own district, *i. e.*, every enumerator not in a city which had 8,000 inhabitants or over at the census of 1870, (a) will collect the statistics of all manufacturing establishments of whatever character or size, except those engaged in the manufacture of iron and steel, of cotton, woolen and worsted or silk goods, of coke or glass, or in the mining of the metals or of coal and petroleum.

#### SCHEDULE 5 [7-222].—MORTALITY.

The instructions and explanations in regard to the filling of this schedule are fully given in the note upon the face and back of the schedule itself.

#### RAILROAD, TELEGRAPH, AND INSURANCE STATISTICS.

The statistics of telegraph, express, railroad, and insurance companies will be collected by special agents appointed directly from the census office. Supervisors will have no responsibility therefor, and enumerators will be charged with no duties relating thereto.

#### SUPPLEMENTAL AND SPECIAL SCHEDULES.

In addition to the five regular schedules of the census (one of which (4), the social-statistics schedule, has, as already explained, been fully withdrawn from the enumerators) certain supplemental schedules have been prepared, under the authority of the seventeenth and eighteenth sections of the act of March 3, 1879. Of these, seven relate to the defective, dependent, and delinquent classes, who are to be enumerated both on the regular population schedule and upon the appropriate supplemental schedule.

These seven schedules are as follows:

No. 1 [7-321].—For Insane.

No. 2 [7-322].—For Idiots.

No. 3 [7-323].—For Deaf-mutes.

No. 4 [7-324].—For Blind.

No. 5 [7-325].—For Homeless Children.

No. 6 [7-326].—For Inhabitants in Prison.

No. 7 [7-327].—For Paupers and Indigent Persons in Institutions.

a Certain towns of smaller population, but of considerable manufacturing importance, may also be selected to be canvassed in their manufacturing interests by special agents; but in such cases the regular enumerators will be specially informed of this action of the census office.

Each person belonging to the several classes indicated above is to be entered first upon the regular population schedule, with all the particulars required in the case of any inhabitant; and is then to be entered a second time on the supplemental schedule of his class, with the particulars called for by that schedule. For each person thus entered on the supplemental schedule the enumerators will receive separate compensation and at higher rates than for entries upon the regular population schedule.

The nature of the information called for by these supplemental schedules relative to the defective, dependent, and delinquent classes will be found fully explained upon the schedules themselves.

Special attention is called to the additional questions at the bottom of supplemental schedules Nos. 6 and 7 (respecting criminals and paupers or indigent persons in institutions), and enumerators are instructed and required to use all possible effort to secure full and correct replies.

#### SPECIAL SCHEDULES OF MANUFACTURES.

In addition to the regular manufacturing schedule, special manufacturing schedules have been prepared. These schedules are as follows:

No. 1 [7-340].—Agricultural Implements.

No. 2 [7-341].—Paper Mills.

Nos. 3 and 4 (on one sheet) [7-342].—Boots and Shoes; Leather.

Nos. 5 and 6 (on one sheet) [7-343].—Brickyards and Tile-works; Lumber-mills and Saw-mills.

Nos. 7 and 8 (on one sheet) [7-344].—Flour and Grist Mills; Cheese and Butter and Condensed Milk Factories.

Nos. 9 and 10 (on one sheet) [7-345].—Slaughtering and Meat Packing; Salt.

Nos. 11 and 12 (on one sheet) [7-346].—Coal Mines (a); Quarries.

Establishments of productive industry entered upon these special schedules will not be entered upon the general schedule. Compensation will be given for establishments reported on the special schedules at a higher rate than for those reported on general manufacturing schedules.

While the special schedules of manufactures will be furnished to every enumerator, except in cities where the statistics of manufactures are to be collected wholly by special agents, it will not be necessary for the enumerator to carry all of these schedules around with him in his daily canvass, in case he knows that no establishments of the classes provided for in these schedules exist in his district. Thus, for instance, the enumerator of a rural district may know as well at the beginning as he would at the close of his term of service that no paper mills or establishments for the manufacture of agricultural implements exist in that township, and consequently may, with entire safety, leave the schedules relating to these branches of industry at home.

#### ENUMERATORS' DAILY REPORTS.

Two postal cards [7-287] for each working day of the period allowed for enumeration will be furnished to each enumerator, one to be addressed to the supervisor of his district, the other to be addressed to the Superintendent of Census at Washington.

The cards addressed to supervisors are printed on gray paper, those addressed to the Superintendent of the Census on buff paper.

On the back of these cards is a printed form for a statement by the enumerator of the number of persons, farms, etc., by him enumerated during the day to which the report relates, and also a statement of the time actually and necessarily occupied in this service.

The enumerator will, at the close of each day, fill up and sign this report. If he is in the immediate neighborhood of a post-office on the following day, he will deposit these cards in the mail; if not, he will hold them until such time as he has an opportunity, without undue trouble, so to deposit them; but he will not on any account fail to make out and sign the reports of daily work at the time required.

As these reports will be used in determining the compensation of enumerators, it will be desirable for them to exercise great pains in this particular.

By the act of March 3, 1879, the time occupied in the enumeration is made an element of the enumerator's compensation, to the extent that the compensation allowed to any enumerator east of the one hundredth meridian shall not exceed an average of \$4 per day, of ten hours actual field work each, and the compensation allowed to any enumerator west of the one hundredth meridian shall not exceed \$6 per working day of equal length.

---

a Only to be used in certain counties, as heretofore explained.

## 176 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

For the purpose of determining the compensation of enumerators, therefore, a formal certified report of the time actually and necessarily occupied in the service will have to be made.

A blank for this purpose [7-363] will be furnished to each enumerator, and upon this the proper entry should be made for each day at the close thereof at the same time that the daily reports of service, just previously described, are made out.

### COMPENSATION.

By the tenth section of the act of March 3, 1879, the Superintendent of Census, with the approval of the Secretary of the Interior, is authorized to fix the rates of compensation to be allowed by the enumerators, subject to the restriction stated in the preceding paragraph.

Uniform rates will be allowed for the enumeration of deaths occurring during the census year (schedule 5) and of establishments of productive industry as follows, viz:

For each death returned .....	\$0.05
For each establishment of productive industry on the general schedule of manufactures (No. 3) .....	.15
For each establishment of productive industry reported on special schedules of manufactures .....	.25

For the return of living persons (schedule 1), and of farms (schedule 2), the rates allowed will be varied according to the varying ease or difficulty of enumeration.

The minimum allowance for a farm reported will be 12½ cents; for each living inhabitant, 2 cents. The latter rate will be paid generally in cities and incorporated towns and villages. One remark in explanation of the rates of compensation to be allowed, as between cities and villages on the one hand and rural districts on the other, requires to be made. It might at first seem that the amount allowed for each inhabitant returned in the most thickly settled agricultural districts ought to be considerably greater than is allowed in cities. The experience of three censuses, however, has shown that the payment for farms acts as a great equalizer between city and country. Thus the assistant marshals of the ninth census in the rural districts of Illinois, earned, at 2 cents a name and 10 cents a farm, a larger amount for each day of service than the assistant marshals of the city of Chicago at 2 cents a name.

In a comparatively few districts in the territories and the sparsely settled states, a per diem allowance, within the limit of compensation already mentioned as fixed by the tenth section of the act of March 3, 1879, has been authorized.

With these few exceptions, the compensation of the enumerators will be left to be determined by their own energy, promptitude, and industry in the discharge of their duties.

### DATING, SIGNING, AND CERTIFYING RETURNS.

Each page of the population schedules (No. 1) must be dated *and signed* at the time by the enumerator.

On the last page of his returns the enumerator must make and subscribe the following certificate:

I certify that I have this day completed the enumeration of the district assigned to me, and that the returns have been duly and truthfully made in accordance with law and my oath of office.

Dated .....

.....  
Enumerator.

### EXHIBITION AND CORRECTION OF RETURNS.

By the sixth section of the act approved April 20, 1880, provision is made for a public exhibition of the returns of population of the tenth census, and their possible correction, in the following manner, to wit:

"SEC. 6. That section nine of the act aforesaid [act of March 3, 1879] be, and the same hereby is, so amended as to require each enumerator, immediately after completing the enumeration of the population of his district and before forwarding the same to the supervisor, to make and file in the office of the clerk of the county court, or in the office of the court or board administering the affairs of the county to which his district belongs a list of the names, with age, sex, and color, of all persons enumerated by him, which he shall certify to be true, and for which he shall be paid at the rate of ten cents for each one hundred names. He shall give notice by written advertisement at three or more public places in his district that he will be at the court-house of said county on the fifth day after filing said list, not including Sunday,

from nine o'clock ante meridian to six o'clock post meridian and the following day, for the purpose of correcting his enumeration by striking out or adding the designation of persons improperly enumerated or omitted; and on the days so designated he shall, in accordance with said notice, proceed to correct, on such reliable information as he may obtain, all omissions and mistakes in such enumeration, and to that end he may swear and examine witnesses, who shall testify, subject to the pains and penalties of perjury. The result of such inquiry for correction and the whole number of persons by him enumerated, he shall make known to the bystanders, if any. And the time given enumerators by said act to make return to supervisors is hereby extended fifteen days. And each enumerator shall be paid for his services in correcting his schedule of inhabitants as required by this act a sum to be fixed by the Superintendent of Census, in no case to exceed two dollars and fifty cents per day. And that the oath of office prescribed by section seven of said act be so amended as to authorize and require the making and filing of the list of inhabitants as required by this act."

To enable enumerators to carry out the provisions of the foregoing section, blank forms for the list of inhabitants required to be publicly posted will be furnished from this office, and the allowance made to enumerators for the two days of additional service required will be the maximum allowed by the law, viz, \$2.50 a day.

FRANCIS A. WALKER,  
*Superintendent of Census.*

### CENSUS OF 1890.

#### SCHEDULE No. 1.—POPULATION AND SOCIAL STATISTICS.

Supervisor's district No.; Enumeration district No.

Name of city, town, township, precinct, district, beat, or other minor civil division;  
County; State.

Street and No.; Ward; Name of institution.

Enumerated by me on the ..... day of June, 1890. ...., Enumerator.

- A. Number of dwelling house in the order of visitation.
- B. Number of families in this dwelling house.
- C. Number of persons in this dwelling house.
- D. Number of family in the order of visitation.
- E. Number of persons in this family.
1. Christian name in full and initial of middle name.  
Surname.
2. Whether a soldier, sailor, or marine during the civil war (United States or Confederate), or widow of such person.
3. Relationship to head of family.
4. Whether white, black, mulatto, quadroon, octoroon, Chinese, Japanese, or Indian.
5. Sex.
6. Age at nearest birthday. If under 1 year, give age in months.
7. Whether single, married, widowed, or divorced.
8. Whether married during the census year (June 1, 1889, to May 31, 1890).
9. Mother of how many children, and number of these children living.
10. Place of birth.
11. Place of birth of father.
12. Place of birth of mother.
13. Number of years in the United States.
14. Whether naturalized.
15. Whether naturalization papers have been taken out.
16. Profession, trade, or occupation.
17. Months unemployed during the census year (June 1, 1889, to May 31, 1890).
18. Attendance at school (in months) during the census year (June 1, 1889, to May 31, 1890).
19. Able to read.
20. Able to write.
21. Able to speak English. If not, the language or dialect spoken.
22. Whether suffering from acute or chronic disease, with name of disease and length of time afflicted.
23. Whether defective in mind, sight, hearing, or speech, or whether crippled, maimed, or deformed, with name of defect.
24. Whether a prisoner, convict, homeless child, or pauper.

25. Supplemental schedule and page.
26. Is the home you live in hired, or is it owned by the head or by a member of the family?
27. If owned by head or member of family, is the home free from mortgage incumbrance?
28. If the head of family is a farmer, is the farm which he cultivates hired, or is it owned by him or by a member of his family?
29. If owned by head or member of family, is the farm free from mortgage incumbrance?
30. If the home or farm is owned by head or member of family and mortgaged, give the post-office address of owner.

To ENUMERATORS.—The inquiries numbered 26 to 30, inclusive, must be made concerning each family and each farm visited.

## INSTRUCTIONS TO ENUMERATORS—CENSUS OF 1890. (a)

### GENERAL INSTRUCTIONS.

DEPARTMENT OF THE INTERIOR, CENSUS OFFICE,  
*Washington, D. C., May 1, 1890.*

Under the provisions of the act entitled "An act to provide for taking the eleventh and subsequent censuses," approved March 1, 1889, a census of the population, wealth, and industry of the United States is to be taken as of June 1, 1890. By the provisions of section 19 of said act the enumeration must be completed on or before the first day of July, and in any city having over 10,000 inhabitants under the census of 1880 the enumeration must be taken within two weeks from the first Monday of June.

One hundred and seventy-five supervisors of census, one or more to each state and territory and the District of Columbia, have been appointed by the President, by and with the advice and consent of the Senate.

### APPOINTMENT OF ENUMERATORS.

Upon the approval by the Superintendent of Census of the persons designated for appointment as enumerators in each district the supervisor will issue to each person so named a commission, signed by said supervisor and approved by the Superintendent of Census, authorizing and empowering him to execute and fulfill the duties of an enumerator in accordance with law, and setting forth the boundaries of the subdivision within which such duties are to be performed by him. Accompanying the commission will be a blank form of oath or affirmation [7-062], as required by section 8 of the act of March 1, 1889.

As soon as the commission and printed form of oath are received by the enumerator the receipt of the commission should be acknowledged to the supervisor on form 7-792, and the oath duly subscribed, in accordance with the instructions printed thereon, and transmitted to the supervisor before the first Monday of June, the date fixed by law for the commencement of the enumeration. These requirements must be strictly complied with, as no enumerator is qualified by law to enter upon his duties until he has received his commission and filed his oath with the supervisor for his district. It is also provided by law that the enumerator, by accepting his commission and qualifying thereunder, binds himself to carry the work on to completion, unless incapacitated by sickness from so doing. For neglect or refusal to perform the duties required of him under the law he will be deemed guilty of a misdemeanor, and be liable upon conviction to a fine not exceeding \$500. An enumerator can not throw up the work, therefore, simply because of dissatisfaction or indolence.

### DUTIES OF ENUMERATORS.

It is the duty of each enumerator, after being duly qualified as above, to visit personally each dwelling in his subdivision, and each family therein, and each individual living out of a family in any place of abode, and by inquiry made of the head of such family, or of the member thereof deemed most credible and worthy of trust, and of such individual living out of a family, to obtain each and every item of information and all the particulars required by the act of March 1, 1889. All of this data is to be obtained as of date June 1, 1890.

In case no person shall be found at the usual place of abode of such family, or individual living out of a family, competent to answer the inquiries made in compliance with the requirements of the act, then it shall be lawful for the enumerator to obtain the required information, as nearly as may be practicable, from the family or families, or person or persons, living nearest to such place of abode. The term "individual living out of a family" is explained in the special instructions concerning schedule No. 1 (page 20).

It is the prime object of the enumeration to obtain the name and the requisite particulars as to personal description of every person in the United States, except Indians not taxed.

#### COURTESY ON THE PART OF ENUMERATORS.

It is the duty of an enumerator, in the exercise of his authority to visit houses and interrogate members of families resident therein, to exercise courtesy and consideration. A rude, peremptory, or overbearing demeanor would be an injustice to the families visited, and would render the members of those families less disposed to give information with fullness and exactness, and would seriously retard the census work.

On the other hand, it is not necessary that the enumerator should enter into prolix explanations or give time to anything beyond the strictly necessary work of interrogation. The enumerator should be *prompt, rapid, and decisive* in announcing his object and his authority and in making his inquiries, but in so doing he should not arouse any antagonism or give any offense.

#### THE OBLIGATION TO GIVE INFORMATION.

It is not within the choice of any inhabitant of the United States whether he will or will not communicate the information required by the census law. By the fifteenth section of the act approved March 1, 1889, it is provided:

"That each and every person more than twenty years of age belonging to any family residing in any enumeration district or subdivision, and in case of the absence of the heads and other members of any such family, then any representative of such family, shall be, and each of them hereby is, required, if thereto requested by the superintendent, supervisor, or enumerator, to render a true account to the best of his or her knowledge of every person belonging to such family in the various particulars required by law, and whoever shall willfully fail or refuse shall be guilty of a misdemeanor, and upon conviction thereof shall be fined in a sum not exceeding one hundred dollars."

Enumerators are cautioned, however, not to obtrude unnecessarily the compulsory feature of the enumeration. It will be found very generally that the persons called upon to give information will do so without objection or delay. It is only where information required by law is refused that the penalties for noncompliance need be referred to. The enumerator will then quietly but firmly point out the consequences of persistency in refusal.

#### FALSE STATEMENTS.

It is further to be noted that the enumerator is not required to accept answers which he knows or has reason to believe are false. He has a right to a true statement on every matter respecting which he is bound to inquire. Should any person persist in making statements which are obviously erroneous, the enumerator should enter upon the schedule the facts as nearly as he can ascertain them by his own observation or by inquiry of credible persons.

This matter becomes of special importance with reference to the statements made concerning members of families who are mentally or physically defective. The law requires a return in the case of each insane, feeble-minded, idiotic, blind, or deaf person, or such as may be crippled, maimed, or deformed. It not infrequently happens that the persons interrogated are disposed to conceal, or even to deny, the existence of such infirmities on the part of members of their household, especially as regards children. In such cases, if the fact is personally known to the enumerator, or if ascertained by inquiry from neighbors, it should be entered on the schedule the same as if obtained from the head or some member of the family.

In the same way the enumerator is not bound by any statement concerning the values produced in agricultural or other occupations which he knows or has reason to believe to be false; also, regarding homes and farms which are reported as having no incumbrances resting upon them, no statement should be accepted which he believes to be false. His duty is to report the actual facts as nearly as he can ascertain them.

## PENALTY FOR DISCLOSING INFORMATION.

By the thirteenth section of the act of March 1, 1889, it is provided that "any supervisor or enumerator who shall, without the authority of the Superintendent, communicate to any person not authorized to receive the same any information gained by him in the performance of his duties, shall be deemed guilty of a misdemeanor, and upon conviction shall be fined not exceeding five hundred dollars."

The intent of this provision is to make the answers to all the inquiries confidential, and to prevent disclosures of information which would operate to the personal detriment or disadvantage of the person supplying the same. It is not within the discretion of the supervisor or enumerator to make public or give out for his private use or that of any other person any part of the information obtained by him. All requests, whether from newspapers, local officials, or individuals, for the total population of his subdivision, or other matters pertaining to the enumeration, should be referred to the census office for reply. The returns will be tabulated in this office without delay, and the correct official figures supplied as soon as ascertained. Furthermore, it should be the duty of the enumerator to state, in all cases where objection is raised, that the names and residences will not be used in the printed reports, nor will any statements be made concerning the business or operations of individual establishments.

## FALSE OR FICTITIOUS RETURNS.

The law (sec. 13) further provides:

"If he (supervisor or enumerator) shall willfully or knowingly swear or affirm falsely, he shall be deemed guilty of perjury, and on conviction thereof shall be imprisoned not exceeding three years and be fined not exceeding eight hundred dollars; or, if he shall willfully and knowingly make false certificates or fictitious returns, he shall be deemed guilty of a misdemeanor, and upon conviction of either of the last-named offenses he shall be fined not exceeding five thousand dollars and be imprisoned not exceeding two years."

By this provision the enumerator is placed under severe penalties to do the work required of him honestly and conscientiously. The boundaries of the subdivision allotted to each enumerator are clearly defined in his commission, and it is his duty to make a thorough and systematic canvass of the territory assigned to him, visiting each house and establishment in order and obtaining complete and truthful returns concerning each individual living or doing business therein, as required by the law and his oath of office.

## THE SCHEDULES OF INQUIRIES.

The schedules to be used by the census enumerators are as follows:

Schedule No. 1, relating to population.

Schedule No. 2, relating to agriculture.

Schedule No. 3, relating to general manufactures, and special schedules relating to particular industries.

Schedule No. 5, relating to persons who have died during the census year.

Supplemental schedules Nos. 1 to 8, relating to persons mentally or physically defective, crippled, maimed, or deformed, or temporarily disabled by sickness or disease; also to homeless children, prisoners, and paupers.

Special schedule relating to surviving soldiers, sailors, and marines in the war of the rebellion, and widows of soldiers, sailors, and marines of that war.

In the exercise of the authority conferred on the Superintendent of Census by section 18 of the act of March 1, 1889, schedule No. 4, relating to social statistics, has been withdrawn from the enumerators.

By the same section it is also provided that, in the discretion of the superintendent, the mortality schedules and the general and special schedules for manufactures may be withheld from the enumerators, as explained in the special instructions relating to these schedules.

The schedules, in number deemed sufficient for the enumeration, will be sent by the supervisors of census to the enumerators by registered mail. A portfolio is provided for carrying the schedules needed for each day's work. The extra supply of schedules should be left at home in some safe place, and at the completion of each day's work a new supply sufficient to answer the wants of the next day should be

placed in the portfolio, and the completed work carefully retained at home in the order in which the enumeration is made from day to day.

It is expected that the enumerators will prosecute their work at all times with diligence and dispatch. The limitations as to the time in which the enumeration shall

be completed make it the imperative duty of enumerators to so arrange their work as to finish within the time allowed by law. An ordinary day's work should cover at least ten hours, and it will often be the case that the enumerators will find it profitable to do considerable work during the early part of the evening. When the work can be prosecuted to advantage there is no objection to such an arrangement on the part of the enumerators.

#### THE PLAN OF ENUMERATION IN INSTITUTIONS.

The statistics of population and other special data concerning persons residing in institutions will be taken by institution enumerators; that is, some official or other trustworthy person connected with the institution, who will be appointed specially for the purpose.

This plan of enumeration will not be extended to all institutions, but the appointment of special institution enumerators will be determined partly by the size of the institution and partly by its nature.

For those institutions where this plan of enumeration is to be carried out the enumerators for the districts in which such institutions are located will have no responsibility.

Each enumerator will receive in advance of the enumeration due notification from the supervisor for his district as to the institutions which are not to be taken by him. It should be the duty of the enumerator, however, if there is any institution in his district, whatever may be its size or character, to satisfy himself by personal inquiry of the officer in charge whether a special institution enumerator has been appointed, and if not, to proceed to enumerate the population as in the case of all other houses visited by him. On the other hand, if a special institution enumerator has been appointed for it, then it has been withdrawn from his district, and he will leave it to be enumerated by the special institution enumerator.

#### SOLDIERS AND SAILORS.

All soldiers of the United States Army, civilian employees, and other residents at posts or on military reservations, will be enumerated in the same manner as has been provided for institutions, by the appointment of a special resident enumerator; and in all such cases where the district enumerator has been so notified such posts or military reservations should not be included as a part of his district. For posts not garrisoned, and any other posts not so withdrawn, the district enumerator will make the necessary inquiries, and if no special enumerator has been appointed he will include the residents of such posts as a part of his district equally with other elements of the population.

In a similar way all sailors and marines stationed on vessels, and at the United States navy-yards, as well as resident officers, with their families, will be specially enumerated, and need not be taken by the district enumerator if, upon inquiry or by notification, he knows that such special provision has been made.

#### SPECIAL ENUMERATION OF INDIANS.

The law provides that the Superintendent of Census may employ special agents or other means to make an enumeration of all Indians living within the jurisdiction of the United States, with such information as to their condition as may be obtainable, classifying them as to Indians taxed and Indians not taxed.

By the phrase "Indians not taxed" is meant Indians living on reservations under the care of Government agents or roaming individually or in bands over unsettled tracts of country.

Indians not in tribal relations, whether full-bloods or half-breeds, who are found mingled with the white population, residing in white families, engaged as servants or laborers, or living in huts or wigwams on the outskirts of towns or settlements, are to be regarded as a part of the ordinary population of the country, and are to be embraced in the enumeration.

The enumeration of Indians living on reservations will be made by special agents appointed directly from this office, and supervisors and enumerators will have no responsibility in this connection.

Many Indians, however, have voluntarily abandoned their tribal relations or have quit their reservations and now sustain themselves. When enumerators find Indians off of or living away from reservations, and in no wise dependent upon the Government, such Indians, in addition to their enumeration on the population, 1

## 182 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

supplemental schedules, in the same manner as for the population generally, should be noted on a special schedule [7-917] by name, tribe, sex, age, occupation, and whether taxed or not taxed.

The object of this is to obtain an accurate census of all Indians living within the jurisdiction of the United States and to prevent double enumeration of certain Indians.

Where Indians are temporarily absent from their reservations the census enumerators need not note them, as the special enumerator for the Indian reservation will get their names.

### ENUMERATORS' DAILY REPORT CARDS.

Two postal cards for each working day of the period allowed for enumeration will be furnished to each enumerator, one [7-761] addressed to the supervisor of his district, and the other [7-762] addressed to the Superintendent of Census at Washington.

The cards addressed to supervisors are printed on gray paper, and those addressed to the Superintendent of Census on buff paper.

On the back of these cards is a printed form for a statement by the enumerator of the number of persons, farms, etc., enumerated by him during the day to which the report relates, and also a statement of the time actually and necessarily occupied in this service.

The enumerator will, at the close of each day, fill up and sign this report. If he is in the immediate neighborhood of a post-office on the following day he will deposit these cards in the mail; if not, he will hold them until such time as he has an opportunity, without undue trouble, to deposit them; but he will not on any account fail to make out and sign the reports of daily work at the time required.

As these reports will be used in determining the compensation of enumerators, it will be desirable for them to exercise great pains in this particular.

In those districts where the enumeration must be made in the first two weeks of June the working days actually allowed by law number twelve, and end with June 14. In a few districts it may happen that the time required to complete the enumeration will exceed this limit, and to cover such emergencies daily report cards are supplied for June 16, 17, and 18. The enumeration must be completed, however, within two weeks in all districts, wherever possible, and the necessity for using these additional cards must be avoided, except for unusual causes only.

Accompanying the daily report cards are two forms of certificate of completion of enumeration, which read as follows:

I certify that on the .... day of ....., 1890, I completed the enumeration of the district assigned me, and that the returns have been duly and truthfully made in accordance with law and my oath of office.

*Enumerator for District No. ....*

As soon as the work in each district is finished the enumerator should date, sign, and mail both of these cards, one of which [7-763] is to be sent to the supervisor and the other [7-764] to the Superintendent of Census.

Blanks are also provided for the use of enumerators in making consolidated statements of the time actually and necessarily occupied each day in the prosecution of their work. Upon this form [7-794] should be entered the number of hours and minutes worked each day as recorded on the daily report cards at the close of each day's service, including the time occupied by enumerators in securing from physicians the corrections of the statements of the causes of deaths on schedule No. 5, in hunting up delinquents and absentees, and in securing information omitted upon their first rounds.

### RETURN OF SCHEDULES TO SUPERVISORS.

When the work in an enumeration district is finished all the schedules not used, together with the portfolio, should be neatly packed and returned in the same package with the completed schedules. The schedules and portfolio should be placed between the two pieces of millboard provided for their protection and securely tied, and then wrapped in heavy manila paper in the same manner as when received by the enumerator. The wrapping paper on the package, as originally sent, if preserved and turned (when necessary) will form a suitable cover for the return of the completed work.

The label [7-696] bearing the printed address of the supervisor is to be used by enumerators for the return of the schedules, and should be pasted on the outside of the package and over the old label bearing the name and address of the enumerator

(if the wrapping paper is not turned). This label has the word "registered" stamped thereon, and by attaching the same to the package of schedules it can be sent to the supervisor to whom addressed by registered mail. In signing registry receipts the enumerators are cautioned in all cases to add their official title to their names.

#### COMPENSATION.

By the eleventh section of the act of March 1, 1889, the Superintendent of Census, with the approval of the Secretary of the Interior, is authorized to fix the rates of compensation to be allowed the enumerators in advance of the enumeration.

Uniform rates will be allowed for the enumeration of deaths occurring during the census year and for names on the supplemental schedules and veterans' special schedule as follows:

	Cents.
For each death reported (schedule No. 5) .....	2
For each person mentally or physically defective, and for each prisoner, pauper, or homeless child enumerated (supplemental schedules Nos. 1 to 8) .....	5
For each surviving person or widow of person, who had served in the Army, Navy, or Marine Corps of the United States in the war of the rebellion, enumerated (Veterans' special schedule) .....	5

For the return of living persons (schedule No. 1), of farms (schedule No. 2), and of establishments of productive industry (schedule No. 3 and special schedules) the rates allowed will be determined according to the varying ease or difficulty of enumeration.

The minimum allowance for each living inhabitant will be 2 cents, for each farm reported 15 cents, and for each manufacturing establishment 20 cents. The minimum rate for living inhabitants will be paid generally in cities and in incorporated towns and villages having a population sufficient to form a separate enumeration district. In certain rural districts higher per capita rates will be allowed, according to the relative sparseness of population, difficulties of travel, and other considerations affecting the matter. In regions where, through sparseness of settlement or other difficulties, it would be impossible for an enumerator to earn fair pay at the maximum per capita rates a per diem allowance has been authorized. The rates of pay of the enumerators of the tenth census, and the amounts earned daily by them, have been carefully studied for the various sections of the country, and the inequalities which existed at that census have been eliminated as far as possible.

Each enumerator, before the commencement of the enumeration, will receive from his supervisor a circular announcing the rates of compensation to be paid for his work. At the completion of the enumeration, and after the schedules returned by him have been examined by the supervisor, as required by section 5 of the act of March 1, 1889, a certification of the amount due to each enumerator, in accordance with his returns and the rates authorized for his district, will be made by the supervisor to the Superintendent of Census, and the schedules for such district returned at the same time to the census office.

As soon as the schedules are received at the census office the statements of the supervisor as to the persons, farms, etc., enumerated will be verified, and vouchers in duplicate sent direct from this office to each enumerator, to be by him receipted in duplicate and returned to the census office. Upon the receipt of these vouchers, properly signed, the compensation due to each enumerator will be transmitted by mail in the form of a draft, payable to the order of the enumerator named therein.

#### SPECIAL INSTRUCTIONS RELATIVE TO THE ENTRIES TO BE MADE ON THE GENERAL AND SPECIAL SCHEDULES.

In making the entries, whether of names or figures, upon the schedules enumerators must be careful to write clearly and neatly, without interlineations, erasures, or blots, as the original schedules must be returned to the census office at Washington for examination and compilation, and are to be finally bound in book form as a permanent record.

Use *black ink* in filling the schedules, and be careful to follow instructions as to the marks and symbols to be used in certain cases. Great care should be exercised in making the entries upon the proper line and in the proper column. A little heedlessness in this respect may produce the most serious confusion. The schedules have been arranged to help the enumerator to find the proper line and column through the use of dotted, plain, and heavy lines, so that the eye can be guided to find easily the correct place of entry.

The enumerator should also realize the necessity of having every question answered exactly as required by the instructions. In the work of compilation in the census office each inquiry is treated as if it were the only one on the schedule, and no reference is made to preceding or following answers. The plainest illustration of this point is the necessity of entering every person who is single as "single," even if it is an infant but a few days old. In counting single persons no reference is made to the age, as shown by a preceding inquiry.

Each schedule is provided with a space for the signature of the enumerator, and each schedule, as soon as filled, must be signed by the enumerator as his certification that the entries contained therein have been wholly made by him. The enumerator is prohibited by law from delegating to any other person his authority to enter dwellings and to interrogate their inhabitants. The work of enumeration must be done by him in person, and can not be performed by proxy. The only exception to this which can arise would be in case the services of an interpreter were necessary, and then only when specially authorized from the census office.

#### SCHEDULE No. 1.—*Population.*

The schedule adopted for the enumeration of the population is what is known as the family schedule; that is, a separate schedule for each family, without regard to the number of persons in the family. Three forms of this schedule are provided for the use of enumerators, according as the families to be enumerated are made up of a large or small number of persons.

The single-sheet schedules [7-556a] are provided for use in enumerating families containing from 1 to 10 persons, the double-sheet schedules [7-556b] for use in enumerating families containing more than 10 but not over 20 persons, and the additional sheets [7-556c] for use in enumerating families containing more than 20 persons. In the case of large families, boarding houses, lodging houses, hotels, institutions, schools, etc., containing more than 20 persons use the double sheet for 1 to 20 persons, and such number of the additional sheets as may be necessary. Whenever the additional sheets are used, be careful to write on each sheet, in the spaces provided therefor, the number of the supervisor's district, enumeration district, dwelling house, and family, and also the name of the institution, school, etc., as the case may be. Also, at the heads of the columns in which the information concerning the several persons enumerated is entered, fill in the "tens" figures on the dotted lines preceding the printed unit figures, and continue to number the columns consecutively, as 21, 22, etc., until all the persons in the family have been enumerated.

Upon one or the other of these forms of the population schedule, according to the size of the family to be enumerated, is to be entered the name of every man, woman, and child who on the 1st day of June, 1890, shall have his or her usual place of abode within the enumerator's district. No child born between the 1st day of June, 1890, and the day of the enumerator's visit (say June 5, June 15, etc., as the case may be) is to be entered upon the schedule. On the other hand, every person who was a resident of the district upon the 1st day of June, 1890, but between that date and the day of the enumerator's visit shall have died, should be entered on the schedule precisely as if still living. The object of the schedule is to obtain a list of the inhabitants on the 1st of June, 1890, and all changes after that date, whether in the nature of gain or of loss, are to be disregarded in the enumeration.

In answering the several inquiries on the population and other schedules the space provided for each answer should be filled by a definite statement or a symbol used to denote either that the inquiry is not applicable to the person for whom the answers are being made or that the information can not be obtained. In all cases where the inquiry is not applicable use the following symbol: (X). If for any reason it is not possible to obtain answers to inquiries which are applicable to the person enumerated, use the following symbol to denote this fact: (=). The enumerator must bear in mind, however, that where he has every reason to suppose that he can supply the answer himself it is better than the symbol; and in any case the symbol should not be used until he has made every effort to ascertain the proper answer from the person in the family or in the neighborhood, as required by law.

Explanatory examples of the manner of filling the population schedules and the use of the symbols are contained in printed sheets [7-975] which are supplied to the enumerators.

#### SUPERVISORS' AND ENUMERATION DISTRICTS.

The first thing to be entered at the head of each schedule is the number of the supervisor's district and of the enumeration district in which the work is performed. These numbers must be repeated for each family enumerated, and where additional sheets are used these numbers are to be carried to those sheets, as already stated.

## CIVIL DIVISIONS.

Be careful to enter accurately the name of the city, town, township, precinct, etc., and distinguish carefully between the population of villages within townships and the remainder of such townships. The correct enumeration of the population of these minor civil divisions is especially important, and is of interest in the presentation in the printed reports of details concerning these small bodies of population. So far as possible, also, the population of small unincorporated villages and hamlets should be separately reported. Also enter at the head of each schedule, in the spaces provided therefor, the name of the county and State or Territory in which the minor subdivision is located. In cities the street, street number, and ward should be entered in the proper spaces, and in those cities where special sanitary districts have been established for the purposes of the census enumeration the letters used to designate them should be added in some convenient space at the head of each schedule and encircled thus: (A), (B), (C), etc., according to the special letters used to distinguish these sanitary districts.

## INSTITUTIONS.

Whenever an institution is to be enumerated, as, a hospital, asylum, almshouse, jail, or penitentiary, the full name and title of the institution should be entered, and all persons having their usual place of abode in such institution, whether officers, attendants, inmates, or persons in confinement, should then be entered consecutively on the schedules as one family. If, as sometimes may be the case, a sheriff, warden, or other prison official may live in one end of the prison building, but separated by a partition wall from the prison proper, his family (including himself as its head) should be returned on a separate schedule, and should not be returned on the schedule upon which the prisoners are entered. Where the officers or attendants, or any of them, do not reside in the institution buildings, but live with their families in detached dwellings, no matter whether the houses are owned by the institution or located in the same grounds, they should be reported on separate schedules, but should be included as a part of the work of the special institution enumerator, where one is appointed, and should not be left to be taken by the district enumerator. It may happen also that some of the officers or attendants may reside wholly outside of the institution precincts, either in rented houses or houses owned by the institution, or by themselves, and in such cases they should be enumerated by the district enumerator and not by the special institution enumerator. The tour of duty of the special institution enumerator should not extend beyond the boundaries of the institution grounds, but should include all those persons and inmates whose usual places of abode are clearly within the territory controlled by the institution.

## PERSONS, FAMILIES, AND DWELLINGS.

*A.—Number of dwelling house in the order of visitation.*

In the space against the inquiry marked A is to be entered the number of the dwelling house in the order of visitation. The object of this inquiry is to ascertain the total number of dwelling houses. A dwelling house for the purposes of the census means any building or place of abode, of whatever character, material, or structure, in which any person is living at the time of taking the census. It may be a room above a warehouse or factory, a loft above a stable, a wigwam on the outskirts of a settlement, or a dwelling house in the ordinary sense of that term. A tenement house, whether it contains two, three, or forty families, should be considered for the purposes of the census as one house. A building under one roof suited for two or more families, but with a dividing partition wall and separate front door for each part of the building, should be counted as two or more houses. A block of houses under one roof, but with separate front doors, should be considered as so many houses, without regard to the number of families in each separate house in the block. Wholly uninhabited dwellings are not to be counted.

*B.—Number of families in this dwelling house.*

The inquiry marked B calls for the number of families, whether one or more, in each dwelling house. *Where there is more than one family in a dwelling house, this inquiry should be answered only on the schedule for the first family enumerated and omitted on the schedules for the second and subsequent families enumerated in the same house, to avoid duplication of results; the space on the schedules for the second and subsequent families should be filled, however, by an X, as not being applicable.* An example of this character is given on the printed sheets illustrative of the manner of filling schedules.

*C.—Number of persons in this dwelling house.*

The inquiry marked C calls for the number of persons in each dwelling house, and where there is more than one family in the house the answer should represent the total number of persons included in the several families occupying the same house. Where there is but a single family to a house, the answer to this inquiry should be the same as for Inquiry E. *Where there is more than one family in a dwelling house, this inquiry, as in the case of Inquiry B, should be answered only on the schedule for the first family enumerated.*

*D.—Number of family in the order of visitation.*

In answer to the inquiry marked D enter the number, in the order of visitation, of each family residing in the district. The fact that more than one family is often found in a house makes the family number exceed, necessarily, the house number, as called for by Inquiry A.

The word family, for the purposes of the census, includes persons living alone, as well as families in the ordinary sense of that term, and also all larger aggregations of people having only the tie of a common roof and table. A hotel, with all its inmates, constitutes but one family within the meaning of this term. A hospital, a prison, an asylum is equally a family for the purposes of the census. On the other hand, the solitary inmate of a cabin, a loft, or a room finished off above a store, and, indeed, all individuals living out of families, constitute a family in the meaning of the census act.

By "individuals living out of families" is meant all persons occupying lofts in public buildings, above stores, warehouses, factories, and stables, having no other usual place of abode; persons living solitary in cabins, huts, or tents; persons sleeping on river boats, canal boats, barges, etc., having no other usual place of abode, and persons in police stations having no homes. Of the classes just mentioned the most important, numerically, is the first, viz: Those persons, chiefly in cities, who occupy rooms in public buildings, or above stores, warehouses, factories, and stables. In order to reach such persons, the enumerator will need not only to keep his eyes open to all indications of such casual residence in his enumeration district, but to make inquiry both of the parties occupying the business portion of such buildings and also of the police. In the case, however, of tenement houses and of the so-called "flats" of the great cities as many families are to be recorded as there are separate tables.

A person's home is where he sleeps. There are many people who lodge in one place and board in another. All such persons should be returned as members of that family with which they lodge.

*E.—Number of persons in this family.*

The answer to this inquiry should correspond to the number of columns filled on each schedule, and care should be taken to have all the members of the family included in this statement and a column filled for each person in the family, including servants, boarders, lodgers, etc. Be sure that the person answering the inquiries thoroughly understands the question, and does not omit any person who should be counted as a member of the family.

NAMES, RELATIONSHIP TO HEAD OF FAMILY, AND WHETHER SURVIVORS OF THE WAR OF THE REBELLION.

*1. Christian name in full, initial of middle name, and surname.*

Opposite to the inquiry numbered 1 on the schedule are to be entered the names of all persons whose usual place of abode on the 1st day of June, 1890, was in the family enumerated.

The census law furnishes no definition of the phrase "usual place of abode;" and it is difficult, under the American system of a protracted enumeration, to afford administrative directions which will wholly obviate the danger that some persons will be reported in two places and others not reported at all. Much must be left to the judgment of the enumerator, who can, if he will take the pains, in the great majority of instances satisfy himself as to the propriety of including or not including doubtful cases in his enumeration of any given family. In the cases of boarders at hotels or students at schools or colleges the enumerator can by one or two well-directed inquiries ascertain whether the person concerning whom the question may arise has at the time any other place of abode within another district at which he is likely to be reported. Seafaring men are to be reported at their land homes, no matter how long they may have been absent, if they are supposed to be still alive. Hence, sailors temporarily at a sailors' boarding or lodging house, if they *acknowledge*

any other home within the United States, are not to be included in the family of the lodging or boarding house. Persons engaged in internal transportation, canal men, expressmen, railroad men, etc., if they habitually return to their homes in the intervals of their occupations, will be reported *as of their families*, and not where they may be temporarily staying on the 1st of June, 1890.

In entering the members of a family the name of the father, mother, or other ostensible head of the family (in the case of hotels, jails, etc., the landlord, jailer, etc.) is to be entered in the first column. It is desirable that the wife should be enumerated in the second column, and the children of the family proper should follow in the order of their ages, as will naturally be the case. The names of all other persons in the family, whether relatives, boarders, lodgers, or servants, should be entered successively in subsequent columns.

The Christian name in full and initial of middle name of each person should be first entered and the surname immediately thereunder, as shown in the illustrative example.

2. *Whether a soldier, sailor, or marine during the civil war (United States or Confederate), or widow of such person.*

Write "Sol" for soldier, "Sail" for sailor, and "Ma" for marine. If the person served in the United States forces add "U. S." in parentheses, and if in the Confederate forces add "Conf." in parentheses, thus: Sol (U. S.); Sail (U. S.); Sol (Conf.), etc. In the case of a widow of a deceased soldier, sailor, or marine, use the letter "W" in addition to the above designations, as W. Sol (U. S.), W. Sol (Conf.), and so on.

The enumeration of the survivors of the late war, including their names, organizations, length of service, and the widows of such as have died, is to be taken on a special schedule prepared for the purpose, as provided for by the act of March 1, 1889, and relates only to those persons, or widows of persons, who served in the Army, Navy, or Marine Corps of the United States in the late war. The inquiry concerning the survivors of both the United States and Confederate forces is made on the population schedule so as to ascertain the number now living and the number who have died and have left widows.

3. *Relationship to head of family.*

Designate the head of a family, whether a husband or father, widow or unmarried person of either sex, by the word "Head;" other members of a family by *wife, mother, father, son, daughter, grandson, daughter-in-law, aunt, uncle, nephew, niece, servant*, or other properly distinctive term, according to the particular relationship which the person bears to the head of the family. Distinguish between *boarders*, who sleep and board in one place, and *lodgers*, who room in one place and board in another. If an inmate of an institution or school, write *inmate, pupil, patient, prisoner*, or some equivalent term which will clearly distinguish inmates from the officers and employees and their families. But all officers and employees of an institution who reside in the institution building are to be accounted, for census purposes, as one family, the head of which is the superintendent, matron, or other officer in charge. If more than one family resides in the institution building, group the members together and distinguish them in some intelligible way. In addition to defining their natural relationship to the head of the institution or of their own immediate family, their official position in the institution, if any, should be also noted, thus: *Superintendent, clerk, teacher, watchman, nurse*, etc.

#### COLOR, SEX, AND AGE.

4. *Whether white, black, mulatto, quadroon, octoroon, Chinese, Japanese, or Indian.*

Write *white, black, mulatto, quadroon, octoroon, Chinese, Japanese, or Indian*, according to the color or race of the person enumerated. Be particularly careful to distinguish between blacks, mulattoes, quadroons, and octoroons. The word "black" should be used to describe those persons who have three-fourths or more black blood; "mulatto," those persons who have from three-eighths to five-eighths black blood; "quadroon," those persons who have one-fourth black blood; and "octoroon," those persons who have one-eighth or any trace of black blood.

5. *Sex.*

Write *male or female*, as the case may be.

6. *Age at nearest birthday. If under one year, give age in months.*

Write the age in figures at nearest birthday in whole years, omitting months and days, for each person of one year of age or over. For children who on the 1st of June, 1890, were less than one year of age, give the age in months, or twelfths of a

## 188 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

year, thus: 3/12, 7/12, 10/12. For a child less than one month old, state the age as follows: 0/12. The *exact* years of age for all persons one year old or over should be given whenever it can be obtained. In any event, do not accept the answer "Don't know," but ascertain as nearly as possible the approximate age of each person. The general tendency of persons in giving their ages is to use the round numbers, as 20, 25, 30, 35, 40, etc. If the age is given as "about 25," determine, if possible, whether the age should be entered as 24, 25, or 26. Particular attention should be paid to this, otherwise it will be found when the results are aggregated in this office that a much more than normal number of persons have been reported as 20, 25, 30, 35, 40, etc., years of age, and a much less than normal at 19, 21, 24, 26, 29, 31, etc.

### CONJUGAL CONDITION AND CHILDREN AND CHILDREN LIVING.

#### 7. *Whether single, married, widowed, or divorced.*

Write *single, married, widowed, or divorced*, according to the conjugal condition of the person enumerated. No matter how young the person may be, the conjugal condition, if "single," should be always stated.

#### 8. *Whether married during the census year (June 1, 1889, to May 31, 1890).*

Write *yes* or *no*, as the case may be.

#### 9. *Mother of how many children, and number of these children living.*

This inquiry is to be made concerning all women who are or have been married, including those widowed or divorced. The answers should be given in figures, as follows: 6—5; that is, mother of six (6) children, of which five (5) are living. If a woman who is or has been married has had no children, or if none are living, state the fact thus: 0—0 or 3—0, as the case may be.

### PLACE OF BIRTH AND PARENT NATIVITY.

#### 10. *Place of birth.*

Give the place of birth of the *person* whose name appears at the head of the column opposite inquiry 1, and for whom the entries are being made.

#### 11. *Place of birth of father.*

Give the place of birth of the *father* of the person for whom the entries are being made.

#### 12. *Place of birth of mother.*

Give the place of birth of the *mother* of the person for whom the entries are being made.

If the person (inquiry 10), or father (inquiry 11), or mother (inquiry 12) were born in the United States, name the state or territory, or if of foreign birth name the country. The names of *countries*, and not of cities, are wanted. In naming the country of foreign birth, however, do not write, for instance, "Great Britain," but give the particular country, as *England, Scotland, or Wales*.

If the person, or father, or mother were born in a foreign country of American parents, write the name of the country and also the words "*American citizen*." If born at sea write the words "*At sea*;" if in the case of the father or mother the words "*At sea*" be used, add the nationality of the father's father or mother's father.

If born in Canada or Newfoundland, write the word "English" or "French" after the particular place of birth, so as to distinguish between persons born in any part of British America of French and English extraction respectively. *This is a most important requirement, and must be closely observed in each case and the distinction carefully made.*

### NATURALIZATION.

Inquiries 13, 14, and 15 should be made concerning only those adult *males* of foreign birth who are 21 years of age or over.

#### 13. *Number of years in the United States.*

Give the answer in figures, as 1, 2, 3, 6, 10, etc., according to the number of years such person (as stated above) may have resided in the United States.

#### 14. *Whether naturalized.*

Write "*Yes*" or "*No*," as the case may be.

#### 15. *Whether naturalization papers have been taken out.*

If naturalized (Inquiry 14), use the symbol  $\times$ ; if not naturalized (Inquiry 14), write "*Yes*" or "*No*," as the case may be, in answer to this inquiry (15).

## PROFESSION, TRADE, OR OCCUPATION, AND MONTHS UNEMPLOYED.

16. *Profession, trade, or occupation.*

This is a most important inquiry. Study these instructions closely, and in reporting occupations avoid the use of unmeaning terms. A person's occupation is the profession, trade, or branch of work upon which he chiefly depends for support, and in which he would ordinarily be engaged during the larger part of the year. General or indefinite terms which do not indicate the kind of work done by each person must not be used. You are under no obligation to give a person's occupation just as he expresses it. If he can not tell intelligibly what he *is*, find out what he *does*, and describe his occupation accordingly. The name of the place worked in or article made or worked upon should not be used as the sole basis of the statement of a person's occupation. Endeavor to ascertain always the *character of the service rendered or kind of work done*, and so state it.

The illustrations given under each of the general classes of occupations show the nature of the answers which should be made to this inquiry. They are not intended to cover all occupations, but are indicative of the character of the answers desired in order to secure, for each person enumerated, properly descriptive designations of service rendered or work done by way of occupation and as the means of gaining a livelihood.

**AGRICULTURAL PURSUITS.**—Be careful to distinguish between the *farm laborer*, the *farmer*, and *farm overseer*; also between the *plantation laborer*, the *planter*, and *plantation overseer*. These three classes must be kept distinct, and each occupation separately returned.

Do not confuse the *agricultural laborer*, who works on the farm or plantation, with the general or day laborer, who works on the road or at odd jobs in the village or town. Distinguish also between *woodchoppers* at work regularly in the woods or forests and the laborer, who takes a job occasionally at chopping wood.

Make a separate return for *farmers* and *planters* who own, hire, or carry on a farm or plantation, and for *gardeners*, *fruit growers*, *nurserymen*, *florists*, *vine growers*, etc., who are engaged in raising vegetables for market or in the cultivation of fruit, flowers, seeds, nursery products, etc. In the latter case, if a man combines two or more of these occupations, be careful to so state it, as *florist*, *nurseryman*, and *seed grower*.

Avoid the confusion of the *garden laborer*, *nursery laborer*, etc., who hires out his services, with the proprietor gardener, florist, nurseryman, etc., who carries on the business himself or employs others to assist him.

Return as *dairymen* or *dairywomen* those persons whose occupation in connection with the farm has to do chiefly with the dairy. Do not confuse them with employees of butter and cheese or condensed milk factories, who should be separately returned by some distinctive term.

Return *stock herders* and *stock drovers* separately from *stock raisers*.

Do not include *lumbermen*, *raftsmen*, *log drivers*, etc., engaged in hauling or transporting lumber (generally by water) from the forest to the mill, with the employees of lumber yards or lumber mills.

**FISHING.**—For *fishermen* and *oystermen* describe the occupation as accurately as possible. Be careful to avoid the return of fishermen on vessels as sailors. If they gain their living by fishing, they should be returned as "fishermen," and not as sailors.

**MINING AND QUARRYING.**—Make a careful distinction between the *coal miners* and *miners of ores*; also between miners generally and *quarrymen*. State the kind of ore mined or stone quarried.

Do not return *proprietors* or *officials* of mining or quarrying companies as miners or quarrymen, but state their business or official position accurately.

**PROFESSIONAL PURSUITS.**—This class includes *actors*, *artists* and *teachers of art*, *clergymen*, *dentists*, *designers*, *draftsmen*, *engravers*, *civil engineers*, and *surveyors*, *mechanical and mining engineers*, *government clerks* and *officials*, *journalists*, *lawyers*, *musicians* and *teachers of music*, *physicians*, *surgeons*, *professors* (in colleges and universities), *teachers* (in schools), and other pursuits of a professional nature. Specify each profession in detail, according to the fact. These are cited simply as illustrations of these classes of pursuits.

Distinguish between *actors*, *theatrical managers*, and *showmen*.

Make a separate return for *government clerks* occupying positions under the National, State, county, city, or town governments from clerks in offices, stores, manufacturing establishments, etc.; also distinguish *government officials*.

Return *veterinary surgeons* separately from other surgeons.

Distinguish *journalists*, *editors*, and *reporters* from *authors* and other *literary persons* who do not follow journalism as a distinct profession.

Return separately *chemists*, *assayers*, *metallurgists*, and other scientific persons.

**DOMESTIC AND PERSONAL SERVICE.**—Among this class of occupations are comprised *hotel keepers, boarding-house keepers, restaurant keepers, saloon keepers, and bartenders; housekeepers, cooks, and servants* (in hotels, boarding houses, hospitals, institutions, private families, etc.); *barbers and hairdressers; city, town, and general day laborers; janitors, sextons, and undertakers; nurses and midwives; watchmen, policemen, and detectives.* Specify each occupation or kind of service rendered in detail, according to the fact. The above are given only as examples of the occupations which would naturally be included under this general class of work.

Distinguish carefully between *housekeepers*, or women who receive a stated wage or salary for their services, and *housewives*, or women who keep house for their own families or for themselves, without any gainful occupation. The occupation of grown daughters who assist in the household duties without fixed remuneration should be returned as "Housework—without pay."

As stated under agricultural pursuits, do not confuse *day laborers*, at work for the city, town, or at odd jobs, with the agricultural laborer, at work on the farm or plantation or in the employ of gardeners, nurserymen, etc. State specifically the kind of work done in every instance.

*Clerks* in hotels, restaurants, and saloons should be so described and carefully distinguished from *bartenders*. In many instances bartenders will state their occupation as "clerk" in wine store, etc., but the character of the service rendered by such persons will readily determine whether they should be classed as "bartenders" or not.

*Stationary engineers and firemen* should be carefully distinguished from *engineers and firemen* employed on locomotives, steamboats, etc.

*Soldiers, sailors, and marines* enlisted in the service of the United States should be so returned. Distinguish between officers and enlisted men, and for civilian employees return the kind of service performed by them.

**PURSUIITS OF TRADE AND TRANSPORTATION.**—Distinguish carefully between *real estate agents, insurance agents, claim agents, commission agents*, etc. If a person is a real estate agent and also an auctioneer, as is often the case, return his occupation as *real estate agent and auctioneer*.

Return accountants, bookkeepers, clerks, cashiers, etc., separately, and state the kind of service rendered, as *accountant—insurance; bookkeeper—wholesale dry goods; clerk—gas company; cashier—music store.*

Do not confound a clerk with a salesman, as is often done, especially in dry goods stores, grocery stores, and provision stores. Generally speaking, the persons so employed are to be considered as salesmen, unless the bulk of their service is in the office on the books and accounts; otherwise they should be returned as *salesman—dry goods; salesman—groceries*, etc.

*Stenographers and typewriters* should be reported separately, and should not be described simply as "clerks."

Distinguish carefully between *bank clerks, cashiers in banks, and bank officials*, describing the particular position filled in each case. In no case should a *bank cashier* be confounded with cashiers in stores, etc.

Distinguish between foremen and overseers, packers and shippers, porters and helpers, and errand, office, and messenger boys in stores, etc., and state in each case the character of the duties performed by them, as *foreman—wholesale wool house; packer—crockery; porter—rubber goods; errand boy—dry goods; messenger boy—telegraph.*

State the kind of merchants and dealers, as *dry goods merchant, wood and coal dealer*, etc. Whenever a single word will express the business carried on, as *grocer*, it should be so stated.

In the case of hucksters and peddlers also state the kind of goods sold, as *peddler—tinware.*

Distinguish *traveling salesmen* from *salesmen* in stores, and state the kind of goods sold by them.

Return *boarding and livery stable keepers* separately from *hostlers* and other stable employees.

Distinguish also between *expressmen, teamsters, draymen, and carriage and hack drivers.*

Steam railroad employees should be reported separately, according to the nature of their work, as *baggage men, brakemen, conductors, laborers on railroad, locomotive engineers, locomotive firemen, switchmen, yardmen*, etc.

*Officials of railroad, telegraph, express, and other companies* should be separately returned and carefully distinguished from the employees of such companies.

*Boatmen, canal men, pilots, longshoremen, stevedores, and sailors* (on steam or sailing vessels) should be separately returned.

*Telegraph operators, telephone operators, telegraph linemen, telephone linemen, electric-light men*, etc., should be kept distinct, and a separate return made for each class.

**MANUFACTURING AND MECHANICAL PURSUIITS.**—In reporting occupations pertaining to

manufactures there are many difficulties in the way of showing the kind of work done rather than the article made or the place worked in. The nature of certain occupations is such that it is well nigh impossible to find properly descriptive terms without the use of some expression relating to the article made or place in which the work is carried on.

Do not accept "maker" of an article or "works in" mill, shop, or factory, but strive always to find out the particular work done.

Distinguish between persons who tend machines and the unskilled workman or laborer in mills, factories, and workshops.

Describe the proprietor of the establishment as a "manufacturer," and specify the branch of manufacture, as *cotton manufacturer*, etc. In no case should a manufacturer be returned as a "maker" of an article.

In the case of apprentices, state the trade to which apprenticed, as *apprentice—carpenter*, etc.

Distinguish between *butchers*, whose business is to slaughter cattle, swine, etc., and *provision dealers*, who sell meats only.

Distinguish also between a *glover*, *halter*, or *furrier* who actually make or make up in their own establishments all or part of the gloves, hats, or furs which they sell, and the person who simply deals in but does not make these articles.

Do not use the words "factory operative," but specify in every instance the kind of work done, as *cotton mill—spinner*; *silk mill—weaver*, etc.

Do not describe a person in a printing office as a "printer" where a more expressive term can be used, as *compositor*, *pressman*, *press feeder*, etc.

Make the proper distinction between a *clock or watch "maker"* and a *clock or watch "repairer."* Do not apply the word "jeweler" to those who make watches, watch chains, or jewelry in large establishments.

Avoid in all cases the use of the word "mechanic," and state whether a *carpenter*, *mason*, *house painter*, *machinist*, *plumber*, etc.

Do not say "finisher," "molder," "polisher," etc., but state the article finished, molded, or polished, as *brass finisher*, *iron molder*, *steel polisher*, etc.

Distinguish between *cloakmakers*, *dressmakers*, *seamstresses*, *tailoresses*, etc. In the case of *sewing-machine operators*, specify the work done.

OTHER OCCUPATIONS.—When a lawyer, merchant, manufacturer, etc., has retired from practice or business, say *retired lawyer*, *retired merchant*, etc.

The distinction to be made between *housewives*, *housekeepers*, and those assisting in *housework* has already been stated under "Domestic and Personal Service." For the large body of persons, particularly young women, who live at home and do nothing, make the return as "No occupation." With respect to infants and children too young to take any part in production or to be engaged in any stated occupation, distinguish between those at home and those attending school. For those too young to go to school, or who for some reason did not attend school during the census year, write the words "At home," and for those who attended school during some part of the school year write the words, "At school—public," or "At school—private," according to the kind of school. If taught by a governess or tutor, it should be so stated. The *student at college or engaged in special studies* should be reported separately from *scholars in public or private schools*.

The doing of domestic errands or family chores out of school hours, where a child regularly attends school, should not be considered an occupation. But if a boy or girl, whatever the age, is earning money regularly by labor, contributing to the family support, or appreciably assisting in mechanical or agricultural industry, the kind of work performed should be stated.

#### 17. Months unemployed during the census year (June 1, 1889, to May 31, 1890).

If a person having a gainful occupation was unemployed during any part of the census year it should be so stated in months and parts of months. If, as may often happen, a person was unemployed at his usual occupation for some time during the census year and yet found other temporary employment for some part or the whole of the time, this fact should be clearly stated. For instance, a person's occupation may be that of "farm laborer," at which he may have had no employment for three months during the census year. During two of these three months, however, he may have worked in a shoe shop, so that, so far as actual idleness is concerned, he was only out of work one month. In all such cases, where the nonemployment returned in answer to inquiry 17 does not represent actual idleness as regards the person's usual actual occupation given in answer to inquiry 16, indicate the number of months unemployed at occupation by inserting the figures, in parenthesis, after the name of the occupation itself. In the case just cited, and as shown in the "illustrative example," the answer to inquiry 16 would appear as "Farm laborer (3)" and the answer to inquiry 17 as "1." For all persons not engaged in gainful occupation the symbol "X" should be used.

## 192 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### SCHOOL ATTENDANCE, ILLITERACY, AND LANGUAGE SPOKEN.

18. *Attendance at school (in months) during the census year (June 1, 1889, to May 31, 1900).*

For all persons between the ages of 5 and 17, inclusive, the attendance at school during the census year should be in all cases stated in months and parts of months. Where a person within the above ages did not attend school at all during the census year write "0," and for all other persons to whom the inquiry is not applicable use the symbol "X."

*Inquiries numbered 19 and 20 relate to illiteracy, and are to be made only of or concerning persons 10 years of age or over.*

19. *Able to read.*

Write "Yes" or "No," as the case may be.

20. *Able to write.*

Write "Yes" or "No," as the case may be.

A person may not be able to read or write the English language, and yet may be able to read or write (or both) their native language, as French, Spanish Italian, etc. If in such cases a person can read or write (or both) some language, the answer to Inquiry 19 and Inquiry 20 should be "Yes," according to the fact. If not able to so read or write the answer should be "No." For all persons under 10 years of age use the symbol "X."

21. *Able to speak English. If not, the language or dialect spoken.*

*This inquiry should also be made of or concerning every person 10 years of age or over. If the person is able to speak English so as to be understood in ordinary conversation, write "English;" otherwise, write the name of the language or dialect in which he usually expresses himself, as "German," "Portuguese," "Canadian French," "Pennsylvania Dutch," etc. For all persons under 10 years of age use the symbol "X."*

### MENTAL AND PHYSICAL DEFECTS, ETC.

22. *Whether suffering from acute or chronic disease, with name of disease and length of time afflicted.*

If a person is suffering from acute or chronic disease so as to be unable to attend to ordinary business or duties, give the name of the disease and the length of time that it has lasted.

23. *Whether defective in mind, sight, hearing, or speech, or whether crippled, maimed, or deformed, with name of defect.*

If a person is mentally or physically defective, state the nature of the defect.

24. *Whether a prisoner, convict, homeless child, or pauper.*

If the person is a prisoner, convict, homeless child, or pauper, be careful to so state, as "prisoner," "pauper," etc.

25. *Supplemental schedule and page.*

If answers are required to inquiries 22, 23, or 24, indicate in this space the number of the supplemental schedule and page of schedule on which the special inquiries relating to such person have been answered. (See instructions concerning supplemental schedules.)

### OWNERSHIP OF HOMES AND FARMS.

26. *Is the home you live in hired, or is it owned by the head or by a member of the family?*

If hired, say "Hired;" if owned, say "Owned," and indicate whether owned by head, wife, son, daughter, or other member of family, as "Owned—head;" "Owned—wife;" "Owned—son," etc. If there is more than one son or daughter in the family, and the home is owned by one of them, indicate which one by using the figure at the head of the column in which the name, etc., of the person is entered, as "Owned—son (4)."

27. *If owned by head or member of family, is the home free from mortgage incumbrance?*

If free from incumbrance, say "Free;" if mortgaged, say "Mortgaged."

28. *If the head of family is a farmer, is the farm which he cultivates hired, or is it owned by him or by a member of his family?*

To be answered in the same manner as for inquiry 26.

29. *If owned by head or member of family, is the farm free from mortgage incumbrance?*  
To be answered in the same manner as for inquiry 27.

30. *If the home or farm is owned by head or member of family, and mortgaged, give the post-office address of owner.*

In answer to this inquiry the post-office address of the owner of a mortgaged home or farm must be correctly stated; that is, the post-office at which the owner (whether head of family, wife, son, daughter, etc.) usually receives his or her mail.

*In all cases where it can not be definitely ascertained whether the home or farm is mortgaged or not return the post-office address of the owner, so that this office can communicate with such persons.*

In connection with the definition of mortgage incumbrance it should be stated that judgment notes or confessions of judgment, as in Pennsylvania and Virginia, the deeds of trust of many States, deeds with vendor's lien clause, bonds or contracts for title that are virtually mortgages, crop liens or mortgages upon crops, and all other legal instruments that partake of the nature of mortgages upon real estate, are to be regarded as such; but mechanics' liens are not to be regarded as mortgage incumbrances upon homes or farms.

The enumerator should be careful to use the local name for the mortgage incumbrance when making the inquiries, and should not confine himself to the word "mortgage" when it will be misunderstood.

Some of the difficulties which will arise in connection with the prosecution of the inquiries concerning homes and farms, and how they are to be treated, may be mentioned, as follows:

1. A house is not necessarily to be considered as identical with a home and to be counted only once as a home. If it is occupied as a home by one or more tenants, or by owner and one or more tenants, it is to be regarded as a home to each family.

2. If a person owns and cultivates what has been two or more farms and lives on one, they are not to be taken as more than one farm.

3. If a person owns and cultivates what has been two or more farms and all are not mortgaged, the several farms are to be counted as one farm and as mortgaged.

4. If a person hires both the farm he cultivates and the home he lives in, or owns both, the home is to be considered as a part of the farm.

5. If a person owns the home he lives in and hires the farm he cultivates, or owns the farm he cultivates and hires the home he lives in, both farm and home are to be entered upon the schedule, and separately.

6. If the tenant of a farm and its owner live upon it, either in the same house or in different houses, the owner is to be regarded as owning the home he lives in and the tenant as hiring the farm he cultivates. If the owner simply boards with the tenant, no account is to be made of the owner.

7. If the same person owns and cultivates one farm and hires and cultivates another farm, he is to be entered upon the schedule as owning the farm he cultivates.

8. The head of a family may own and cultivate a farm and his wife may own another farm which is let to tenant, perhaps to her husband. In such case only the farm which is owned by the head of the family is to be considered, but the rented farm is to be taken account of when its tenant's family is visited.

9. A person who cultivates a farm is not to be regarded as hiring it if he works for a definite and fixed compensation in money or fixed quantity of produce, but he is to be regarded as hiring it if he pays a rental for it or is to receive a share of the produce, even though he may be subject to some direction and control by the owner.

#### SCHEDULE NO. 2—Agriculture.

"Farms," for the purposes of the agricultural schedule, include, besides what are commonly known as farms, all considerable nurseries, orchards, and market gardens owned by separate parties, which are cultivated for pecuniary profit, and employ as much as the labor of one able-bodied workman during the year. Mere cabbage and potato patches, family vegetable gardens, and ornamental lawns, not constituting a portion of a farm for general agricultural purposes, will be excluded. No farm will be reported of less than 3 acres unless \$500 worth of produce has been actually sold from it during the year. The latter proviso will allow the inclusion of many market gardens in the neighborhood of large cities, where, although the area is small, a high state of cultivation is maintained and considerable values are produced.

A farm is what is owned or leased by one man and cultivated under his care. A distant wood lot or sheep pasture, even if in another subdivision or district, is to be treated as a part of the farm; but wherever there is a resident overseer or a manager, there a separate farm is to be reported.

The amounts of the various crops may be estimated according to the best judgment of the proprietor or manager where no exact account is kept.

Special instructions as to certain inquiries are contained on the schedule. Those instructions and the following additional explanations should receive the careful attention of all enumerators:

*Improved or unimproved land* should be carefully noted. All land once plowed is *improved* unless afterwards abandoned for cultivation, like the "old fields" of the South. Western enumerators will pay special attention to this instruction, and not be guided by local customs. Rocky, hill, and mountain pastures are *not improved*, but fields used for pasture as a part of a rotation of crops are *improved*.

Weeks of hired labor should be obtained by adding together the number of weeks each individual of the help employed was at work, thus: One man hired by the year should be counted as 52 weeks; another man for twenty-six weeks as 26 weeks; two men in hay and in harvest, each six weeks, as 12 weeks, and one woman in the dairy for a year as 52 weeks; making a total for that farm of 142 weeks of hired labor.

Farmers should be encouraged to give as full and complete answers to the various questions as possible, and the fact should be impressed upon them that they, above all others, are interested in having the returns of the census as near the truth as it is possible to get them.

#### SCHEDULE NO. 3 AND SPECIAL SCHEDULES—*Manufactures.*

The following schedules are provided for the collection of the statistics of manufactures:

##### GENERAL SCHEDULE NO. 3 [7-560].

To be used to report establishments whose operations do not come within the scope of either of the special schedules.

##### SPECIAL SCHEDULES.

- No. 1. Agricultural Implements.
- No. 2. Paper Mills.
- No. 3. Boots and Shoes. (Not including custom work and repairing, which should be returned on general schedule No. 3.)
- No. 4. Leather, Tanned and Curried.
- No. 5. Lumber Mills and Saw Mills. (Including their remanufactures. Planing mills and sash, door, and blind factories separately conducted should be returned on general schedule No. 3.) Timber products not produced by lumber mills and saw mills must be separately returned on special schedule No. 5 *a*.
- No. 6. Brickyards.
- No. 7. Flour and Grist Mills.
- No. 8. Cheese, Butter, and Condensed Milk Factories. (Not including farm products, which should be returned by enumerators on schedule No. 2—Agriculture.)
- No. 9. Slaughtering and Meat Packing. (Not including retail butchering establishments.)
- No. 10. Chemical Manufactures.
- No. 11. Clay and Pottery Products.
- No. 12. Coke. (Not to be taken by enumerators.)
- No. 13. Cotton Manufactures.
- No. 14. Dyeing and Finishing of Textiles.
- No. 15. Electrical Industry. (Not to be taken by enumerators.)
- No. 16. Glass. (Not to be taken by enumerators.)
- No. 17. Manufactured Gas. (Not to be taken by enumerators.)
- No. 18. Iron and Steel. (Not to be taken by enumerators.)
- No. 19. Printing, Publishing, and the Periodical Press.
- No. 20. Shipbuilding.
- No. 21. Silk and Silk Goods.
- No. 22. Wool Manufactures.
- No. 23. Hosiery and Knit Goods.
- No. 24. Carriages and Wagons.
- No. 25. Salt Works. (Not to be taken by enumerators.)
- No. 26. Leather, Patent, Enameled, and Morocco.

Of the foregoing special schedules the following will be mailed direct from the census office to the manufacturers before the time for beginning the enumeration, with the request that the schedules be properly filled out ready for the enumerator when he calls:

- No. 2. Paper Mills.

- No. 10. Chemical Manufactures.
- No. 11. Clay and Pottery Products.
- No. 13. Cotton Manufactures.
- No. 14. Dyeing and Finishing of Textiles.
- No. 20. Shipbuilding.
- No. 21. Silk and Silk Goods.
- No. 22. Wool Manufactures.
- No. 23. Hosiery and Knit Goods.
- No. 26. Leather, Patent, Enameled, and Morocco.

In the event that it shall be found by the enumerator that an establishment of the character noted above has not received a schedule upon which to make its return, the enumerator must at once report the fact to the supervisor of his district, in order that the schedule may be forwarded to be filled and taken up by the enumerator before the completion of his work.

The statistics of iron and steel, of coke, of glass, of the electrical industry, of manufactured gas, and of salt will be collected by expert special agents without regard to locality. Enumerators will not visit establishments of these classes.

In cities and towns of importance as manufacturing centers, without regard to population, the collection of the general statistics of manufactures has been entirely withdrawn from the enumerators and the duty assigned to special agents appointed for each city or town of this class.

A list of the cities and towns in which the collection of these statistics has been withdrawn from the enumerators in each supervisor's district will be furnished the supervisor in order that enumerators may be properly instructed in this respect. To guard against possible failure to collect the statistics of these establishments in localities for which special agents are not to be appointed, enumerators, in the absence of specific instructions from the supervisors, should ascertain beyond the possibility of a doubt whether or not they are to enumerate the establishments of productive industry in their respective districts.

In the rural districts, and in cities and towns for which no special agents are to be appointed, as set forth in the preceding paragraph, the statistics of manufactures will be collected by the enumerators appointed to collect the statistics of population and agriculture and during the progress of the work of enumerating the inhabitants.

It is for the information and guidance of enumerators with respect to this duty that these special instructions are provided.

Enumerators shall personally visit each establishment of productive industry, except those above noted, within their respective districts, and obtain upon the proper schedule a return of the operations of such establishment during the census year, June 1, 1889, to May 31, 1890; in the case, however, of establishments whose books of accounts are balanced at a different date, the return may be for the fiscal year of the establishment most nearly conforming to the census year.

The term "Establishment of productive industry" must be understood in its broadest sense to embrace not only mills and factories, but also the operations of all small establishments and the mechanical trades, as *blacksmithing, coopering, masonry, and bricklaying, mechanical dentistry, wheelwrighting, etc.*

Restaurants, saloons, and barber shops, the compounding of individual prescriptions by druggists and apothecaries, the operations of retail mercantile establishments, transportation corporations and lines, and professional services (except mechanical dentistry, as above noted) are not considered as coming within the meaning of the law in this connection. In case it shall be claimed by any person engaged in the lines of business herein exempt from enumeration that the operations of his establishment are in the nature of productive industry, the facts, together with proper explanatory notes, shall be reported at once to this office through the supervisor of census.

Great care must be taken by enumerators to guard against the omission from their returns of any establishment that comes properly within the scope of their investigation. They should have their eyes open to every indication of the presence of productive industry, and should supplement personal observation by frequent and persistent inquiry.

In the event of an establishment located in one enumeration district having an office located in another enumeration district at which the desired information is to be obtained, the enumerator in whose district the establishment is located shall report the facts at once to this office through the supervisor, with such explanation as may be necessary to insure the procurement of a return of the operations of such establishment.

In filling page 1 and question 1, page 3, of the general and special schedules enumerators should be careful to insert correctly the name and address of the corporation, firm, or individual carrying on the business, and with sufficient fullness to

enable the census office to conduct such subsequent correspondence as may be necessary.

In question 3, general schedule, the kind of business and character of product should be described as specifically as possible, as, for example, "fishing hooks," "hoisting apparatus," "skirt supporters," "speaking tubes," "building hardware," "toys," "fireworks," etc. General terms should be avoided where specific and technical terms will more clearly express the character of the product. Attention is called to the explanatory notes printed on the general and special schedules for manufactures.

It is not necessary to explain at length the use of the word "materials" in respect to manufactures. It will be enough to say that what is the product of one establishment often becomes the material of another, as the product of the foundry may become the material of the machine shop, or the product of the furnace may become the material of the forge and mill, or the product of the woolen mill may become the material of the clothing manufacturer.

The cost of materials and values of products must be reported for all establishments returned upon the general or special schedules. Care must be taken to report clearly and fully (question 7) the kinds, quantities, and cost of the more important materials used by each establishment, and to report in like manner (question 8) the kinds, quantities, and values of the principal products. The kinds and quantities of materials and products noted in the questions on the special schedules must be reported in detail for all establishments returned upon either of such special schedules.

Care should be taken to assure manufacturers that the details of their business will not be made public or communicated to any but authorized employees of the census office. The returns of manufacturing establishments will be used only for the purposes of tabulation, and no publication will be made in the census reports that will disclose the operations of individual establishments. This assurance is set forth on each schedule over the signature of the Superintendent of Census.

#### SCHEDULE No. 5—*Mortality.*

Special instructions for filling this schedule [7-417] are printed on the schedule itself, and need not be repeated here.

In certain cities and localities schedule No. 5 has been withdrawn from the enumerators, as authorized by section 18 of the act of March 1, 1889, and the supervisors have been instructed to so inform the enumerators. All other enumerators not so informed will make the inquiries, as provided for on schedule No. 5.

In the following States there is a more or less complete local registration of deaths, which gives, in almost all cases, the name, age, and sex of those who have died, but does not give certain other items which are called for in the mortality schedule:

Alabama, Connecticut, Massachusetts, Minnesota, New Hampshire, New Jersey, New York, Rhode Island, and Vermont.

In these States the enumerators from whom the schedules are not withdrawn are advised and instructed to consult these local records for the purpose of making their lists of deaths complete as to number; and if they can arrange to copy the names, sex, and age from the local records before starting on their rounds they will then find it easy to fill out the data called for on the mortality schedules.

In all the States, many towns and cities from 5,000 to 15,000 inhabitants have a local registration of deaths which is more or less complete, and in all places where such local registration exists the enumerators should consult the records and, if possible, obtain lists of names, with age and sex, to aid them in their work of obtaining a complete record of deaths.

In the following cities special sanitary districts have been created and the enumerators' districts arranged with reference to keeping the population of each of these sanitary districts distinct:

Allegheny City, Baltimore, Boston, Brooklyn, Buffalo, Charleston, Chicago, Cincinnati, Cleveland, District of Columbia, Kansas City, Minneapolis, Nashville, New Orleans, New York City, Philadelphia, Pittsburg, St. Louis, St. Paul, San Francisco, and Yonkers.

The letter used to designate each sanitary district should be entered on the population, mortality, and supplemental schedules in every instance.

#### SUPPLEMENTAL SCHEDULES.

In addition to the general schedules for population, agriculture, and manufactures, already described, there are eight supplemental schedules which call for special

information concerning the insane, feeble-minded and idiotic, deaf, blind, those diseased and physically defective (not otherwise enumerated), children in benevolent institutions, prisoners, and paupers, as follows:

- No. 1. Statistics of Insanity.
- No. 2. Statistics of Feeble-mindedness and Idiocy.
- No. 3. Statistics of the Deaf.
- No. 4. Statistics of the Blind.
- No. 5. Statistics of Persons Diseased and Physically Defective.
- No. 6. Statistics of Benevolence.
- No. 7. Statistics of Crime.
- No. 8. Statistics of Pauperism.

Each person belonging to the several classes indicated above is to be entered first upon the regular population schedule, with all the particulars required in the case of any inhabitant. This information is to be transferred to the supplemental schedule of his class, as explained on the schedules themselves, and in addition make the special inquiries called for on each supplemental schedule. For each person thus entered on the supplemental schedule the enumerator will receive additional compensation and at higher rates (5 cents for each name) than for entries upon the regular population schedule.

In transferring to the supplemental schedule the answers to certain inquiries on the population schedule it will be necessary to use abbreviations, owing to the width of the columns, as follows:

3. Write "Hd," for head of family; "Wfe," for wife; "Son," "Dau," for daughter; "Gd-son," for grandson; "Gd-dau," for granddaughter; "Dau-in-law," for daughter-in-law; "Aunt," "Unc," for uncle; "Neph," for nephew; "Niece," "Svt," for servant; "Bdr," for boarder; "Ldgr," for lodger. Write "Inm," for inmate; "Pu," for pupil; "Pat," for patient; "Pr," for prisoner.

4. Write "W," for white; "B," for black; "Mu," for mulatto; "Qd," for quadroon; "Oc," for octoroon; "Ch," for Chinese; "Jp," for Japanese; "In," for Indian.

5. Write "M," for male; "F," for female.

7. Write "Sg," for single; "Mr," for married; "Wd," for widow; "Dv," for divorced.

Under "Physical defects" write "yes" in the column or columns indicating the particular defect or defects reported, except in "defective speech," which is to be answered as indicated in the inquiry itself.

In all other respects the answers as made on the population schedule can be transferred without abbreviation to the spaces provided on the supplemental schedules.

The nature of the information called for by these supplemental schedules is fully explained upon the schedules themselves.

Enumerators will take notice that the persons enumerated on the supplemental schedules, whether in or out of institutions, may belong to more than one of the special classes. For example, the pauper insane in hospitals and asylums for the insane are to be enumerated both as insane and as paupers, and all the questions contained on both of these schedules are to be filled, in order that they may be in proper shape for the work to be done upon them in the census office when received. The same remark applies to insane prisoners, to deaf or blind children in orphan schools or in homes for the friendless, and in many similar cases. A full description is to be made of each person belonging to more than one of the special classes on each of the schedules for each of the classes to which he belongs. For this double work double pay will be allowed.

Some of the questions contained on the supplemental schedules can not be answered by means of a personal interview with each person so enumerated, but can be answered by examination of the institution records if in an institution. In all such cases it will be expected and required that the enumerator shall examine the records and reply to each special question as fully as may be possible.

Wherever there is a city or town lockup in which prisoners are retained usually for but a single night or a night and a day the enumerator will be expected to visit it on the first Monday of June, to ascertain whether there are any prisoners then in confinement in it, and not to delay such visit until a later date.

Enumerators should understand that the object of the inquiry relating to paupers is to ascertain the number of persons who were on the first day of June wholly or partly, but permanently, supported at the expense of the poor fund belonging to any State, county, city, or town. From this class should be excluded all persons not inmates of almshouses who receive only temporary aid at their homes. But all inmates of almshouses should be reported on the pauper schedule, also those not in almshouses who are boarded out at public expense or kept on any private farm or in any private house at public expense. In every enumeration district an effort should

## 198 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

be made, in advance of entering upon the work of enumeration, to find out, if the enumerator does not already know, whether any county or town paupers are kept for pay by any of the inhabitants of the district, and all such should be reported, subject to the caution given above.

Care must be exercised in the case of every almshouse, lockup, police station, jail, prison, hospital, asylum, school, or other institution to write the name of the institution in full at the top of each page of the general and supplemental schedules.

### SPECIAL SCHEDULE—*Surviving soldiers, etc.*

The provision of the act of March 1, 1889, under which the special enumeration of survivors of the war of the rebellion is made, reads as follows:

"That said superintendent shall, under the authority of the Secretary of the Interior, cause to be taken on a special schedule of inquiry, according to such form as he may prescribe, the names, organizations, and length of service of those who had served in the Army, Navy, or Marine Corps of the United States in the war of the rebellion, and who are survivors at the time of said inquiry, and the widows of soldiers, sailors, or marines."

The entries concerning each survivor or widow should be carefully and accurately made, so that the printed reports may contain only thoroughly trustworthy information.

Spaces are provided on the special schedule for the entry of 50 names, or, more properly, terms of service. The spaces are numbered consecutively from 1 to 50, and cover the four pages comprised in each schedule. The inquiries made concerning each survivor or widow call for the repetition of the number of the house and family as returned on the general population schedule (No. 1), the name, rank, company, regiment, or vessel, date of enlistment, date of discharge, and length of service (in years, months, and days) on the upper half of each page, and the post-office address, disability incurred, and general remarks on the lower half of each page. The column headed "Remarks" is intended to be used to cover any points not included in the foregoing inquiries and which are necessary to a complete statement of a person's term of service.

In the case of persons having served in more than one organization, use as many spaces as may be necessary to cover their various terms of service.

In the case of widows of deceased soldiers, sailors, or marines, make the entry of her name on the dotted line, as follows:

Lucretia A., widow of

Ashton, John R.

filling out the record of his service during the war, and giving under "Post-office address" the present address of the widow.

Where a person enlisted under an assumed name, and was so borne on the muster rolls, but who has since resumed his lawful name, and under which he would be enumerated on the population schedule, make the entry on the special schedule for survivors as follows:

John H. Brown, alias

Galbreath, James H.

In this case the man's real name is John H. Brown, but the name under which he served was James H. Galbreath.

The attention of enumerators is called specially to the fact that from a number of the States there were *two*, and in some instances *three*, and even *four* regiments mustered into the service of the United States at different dates during the war whose designations were the same or so nearly similar as to be easily confounded with each other. For example: In Massachusetts the Sixth Regiment of Infantry was organized in August and September, 1862, to serve nine months, and was mustered out June 3, 1863; the Sixth Regiment of Militia Infantry was organized April 22, 1861, to serve three months, and was mustered out in July, 1861, and the Sixth Regiment of Militia Infantry was organized in July, 1864, to serve one hundred days, and was mustered out October 27, 1864. So also there were two organizations from that State—among several similar duplications—called the Second Unattached Company Militia Infantry: one organized May 3, 1864, to serve ninety days, and mustered out August 6, 1864, and the other organized August 7, 1864, to serve one hundred days, and mustered out November 15, 1864. In Ohio the Sixtieth Infantry (one year's service) was organized in February, 1862, and mustered out November 10, 1862, and the Sixtieth Infantry (three years' service) was organized in the months of February, March, April, and May, 1864, and mustered out July 28, 1865. The Eighty-eighth

Infantry (three months' service) was organized in June, 1862, and mustered out September 26, 1862, and the Eighty-eighth Infantry (three years' service) was organized from September 24, 1862, to August 3, 1863, and was mustered out July 3, 1865. In Missouri the First Regiment Infantry was organized in April and May, 1861, to serve three months; two companies were mustered out in July and August, 1861, and the remaining companies reorganized for three years' service, and the designation changed to the First Missouri Light Artillery September 1, 1861; the First Regiment United States Reserve Corps, Missouri, was organized May 7, 1861, to serve three months, and mustered out August 20, 1861; the First Regiment United States Reserve Corps, Missouri, was organized September 3-14, 1861, to serve during the war in Missouri, and mustered out in September and October, 1862; and the First Regiment (State militia) was organized from December, 1861, to May, 1862, to serve during the war in Missouri, and mustered out by companies from December, 1864, to May, 1865. In Pennsylvania the Twentieth Regiment Volunteer Infantry was organized April 30, 1861, to serve three months, and was mustered out August 6, 1861; and the Twentieth Regiment Militia Infantry was organized June 17, 1863, to serve during the emergency, and mustered out August 10, 1863.

Enumerators should also be careful to distinguish between the *arms* of the service, and in giving the record of the service of a soldier state whether he belonged, for example, to the cavalry, artillery (heavy or light), engineers, or infantry.

All men *who were mustered into the military service of the United States during the late war* should be enumerated.

ROBERT P. PORTER,  
*Superintendent of Census.*

### THE MENTALLY AND PHYSICALLY DEFECTIVE.

[The inquiries relating to the mentally and physically defective prior to 1880 are contained on the Population Schedule, as already explained, and are not here reproduced. The inquiries in 1880 and 1890 relating to this class are contained in a series of supplemental schedules, the inquiries being printed at the heads of columns and the entries concerning each person returned thereon being made on horizontal cross lines. In 1890 the inquiries relating to the general population were reproduced, for convenience, on each supplemental schedule. The supplemental schedules in 1880 contained spaces for 50 entries to each page, and in 1890 for 15 entries to each schedule, the inquiries (including those relating to population) in 1890 occupying 3 pages and being contained in two series of columns to each page. Besides the supplemental schedules used in 1890, special schedules were sent to institutions for the insane and to schools for the blind and the deaf, calling for a statement of the number of patients or pupils and of the expenditures for certain periods and years.]

### CENSUS OF 1880.

SUPPLEMENTAL SCHEDULE No. 1.—INSANE inhabitants in ....., in the County of ....., State of ....., enumerated by me June, 1880. ...., Enumerator.

Page No.; Supervisor's district No.; Enumeration district No.

Number taken from schedule No. 1:

1. Number of page.
2. Number of line.
3. Name.
- Residence when at home (see note A):
4. City or town.
5. County (if in same State), or State (if in some other State).
6. If now an inmate of an institution, is this person a pay patient?
7. Form of disease. (See note B.)
- History of attack (see note C):
8. Duration of present attack (not including previous attacks).
9. Total number of attacks (including the present one).
10. Age at which first attack occurred.
- Restraint and seclusion (see note D):
11. Does this person require to be usually or often kept in a cell or other apartment under lock and key, either by day or at night?
12. Does this person require to be usually or often restrained by any mechanical appliance, such as a strap, strait-jacket, etc.? and if yes, state the character of the appliance used.

**Hospital or asylum (see note E):**

13. Has this person ever been an inmate of any hospital or asylum for the insane?  
If yes, name the said hospital or asylum.
14. What has been the total length of time spent by him (or her) during life in such asylums?
15. Date of discharge (year only).  
(See note F):
16. Is this person also an epileptic?
17. Is this person suicidal?
18. Is this person homicidal?

The object of this supplemental schedule is to furnish material not only for a complete enumeration of the insane, but for an account of their condition. It is important that every inquiry respecting each case be answered as fully as possible. Enumerators will, therefore, after making the proper entries upon the Population Schedule (No. 1), transfer the name (with schedule page and number) of every insane person found, from schedule No. 1 to this special schedule, and proceed to ask the additional questions indicated in the headings of the several columns.

Enumerators may obtain valuable hints as to the number of the insane, and their residence, from physicians who practice medicine in their respective districts.

**NOTE A.**—An insane person may be found either at his own home or away from it in some institution, such as a hospital, asylum, or poorhouse. In the latter case his residence when at home must be stated, in order that he may be accredited to the State or county to which he properly belongs, and that the county in which the institution is situated may not be charged with more than its due proportion of insane.

**NOTE B.**—This question can only be answered by physicians. It is not intended that it shall be asked by enumerators, but that it shall be answered by physicians connected with institutions in which insane persons are kept as inmates. It is not necessary to make minute subdivisions, but to ascertain the number suffering from certain marked forms of insanity—mania, melancholia, paresis (general paralysis), dementia, epilepsy, or dipsomania.

**NOTE C.**—An insane person may have more than one attack of insanity: he may recover and afterwards become again insane. It is important to know at what age the first attack occurred; how many distinct attacks the patient has had; and the duration of the present attack. If he has not had more than one attack, which still continues, insert the figure "1" in column 9. The duration of the present attack may be stated in years or months, thus: "1 yr." or "3 mos."

**NOTE D.**—The object of the inquiries in columns 11 and 12 is to ascertain approximately the proportion of the insane who can not be trusted with their personal freedom. In column 11, if the patient is usually or often locked in a room or other apartment in the daytime, say "Yes;" if not, say "No;" but if locked at night and not by day, say "Night." In column 12, if usually or often mechanically restrained, state the mode of restraint, thus: "Strait-jacket," "Camisole," "Muff," "Strap," "Handcuffs," "Ball and chain," "Crib-bed," etc. If, instead of mechanical restraint, the patient has a constant personal attendant, say "Attendant."

**NOTE E.**—In column 13 name all the hospitals or asylums for the insane (not jails or poorhouses) in which the patient has been for a longer or shorter time an inmate, and in column 14 state the entire number of months or years spent in such institutions (whether in one institution or more).

**NOTE F.**—In making entries in columns 16, 17, and 18, an affirmative mark only will be used, thus: /

**SUPPLEMENTAL SCHEDULE No. 2.**—IDIOTS residing in ....., in the County of ....., State of ....., enumerated by me June, 1880. ...., Enumerator.

Page No.; Supervisor's district No.; Enumeration district No.

Number taken from schedule No. 1:

1. Number of page.
2. Number of line.
3. Name.  
Residence when at home (see note A):
4. City or town.
5. County (if in same State), or State (if in some other State).
6. Is this person self-supporting, or partly so? (See note B.)
7. Age at which idiocy occurred. (See note C.)
8. Supposed cause of idiocy (if acquired). (See note D.)
9. Size of head (large, small, or natural).

## Training school:

10. Has this person ever been an inmate of a training school for idiots? If yes, name the said training school.
11. What has been the total length of time spent by him (or her) during life in any such training school or training schools?
12. Date of discharge (year only).  
(See note E):
13. Is this person also insane?
14. Is he (or she) also blind?
15. Is he (or she) also deaf?
16. Is he (or she) also an epileptic?
17. Is he (or she) paralyzed; and if yes, on which side?  
Right.
18. Left.

The object of this supplemental schedule is to furnish material not only for a complete enumeration of the idiots, but for an account of their condition. It is important that every inquiry respecting each case be answered as fully as possible. Enumerators will, therefore, after making the proper entries upon the Population Schedule (No. 1), transfer the name (with schedule page and number) of every idiot found, from schedule No. 1 to this special schedule, and proceed to ask the additional questions indicated in the headings of the several columns.

The word "idiot" has a special meaning which it is essential for every enumerator to know. An idiot is a person the development of whose mental faculties was arrested in infancy or childhood before coming to maturity. It is sometimes difficult to distinguish between the stupidity which results from idiocy and that which is due to the loss or deterioration of mental power in consequence of insanity. The latter is not true idiocy, but dementia or imbecility. The enumeration desired for the census is of true idiots only. Demented persons should be classed with the insane.

Enumerators may obtain valuable hints as to the number of idiots, and their residences, from physicians who practice medicine in their respective districts.

NOTE A.—An idiot may be found either at his own home or away from it in some institution, such as a training school, asylum, or poorhouse. In the latter case his residence when at home must be stated, in order that he may be accredited to the State or county to which he properly belongs, and that the county in which the institution is situated may not be charged with more than its due proportion of idiots.

NOTE B.—If self-supporting, say "Yes;" if partly self-supporting, say "Partly;" if not, say "No." Indicate all inmates of institutions who are maintained or treated at their personal expense (not at the expense of any town, county, or State, nor of the institution) by the word "Pay."

NOTE C.—If an idiot from birth, say "B;" if idiocy occurred after birth, state the age at which it occurred. Special pains should be taken to indicate all idiots from birth.

NOTE D.—The causes of idiocy are such as the following: Scarlet fever, measles, meningitis, etc., blow on head, fall, etc., fright, etc.

NOTE E.—In making entries in columns 13, 14, 15, 16, 17, and 18, an affirmative mark only will be used, thus: /

SUPPLEMENTAL SCHEDULE No. 3.—DEAF-MUTES in ....., in the County of ....., State of ....., enumerated by me June, 1880. ...., Enumerator.

Page No.; Supervisor's district No.; Enumeration district No.

Number taken from schedule No. 1:

1. Number of page.
2. Number of line.
3. Name.  
Residence when at home (see note A):
4. City or town.
5. County (if in same State) or State (if in some other State).
6. Is he (or she) self-supporting, or partly so? (See note B.)
7. Age at which deafness occurred. (See note C).
8. Supposed cause of deafness (if known).  
(See note D):
9. Is this person semimute?
10. Is he (or she) semideaf?

## Institution life:

11. Has this person ever been an inmate of an institution for deaf-mutes? If yes, give the name of such institution.
12. What has been the total length of time spent by him (or her) in any such institution?
13. Date of his (or her) discharge (year only).  
(See note E):
14. Is this person also insane?
15. Is he (or she) also idiotic?
16. Is he (or she) also blind?

The object of this supplemental schedule is to furnish material not only for a complete enumeration of deaf-mutes, but for an account of their condition. It is important that every inquiry respecting each case be answered as fully as possible. Enumerators will, therefore, after making the proper entries upon the Population Schedule (No. 1), transfer the name (with schedule page and number) of every deaf-mute found, from schedule No. 1 to this special schedule, and proceed to ask the additional questions indicated in the headings of the several columns. Care must be taken not to enumerate persons who are deaf only (hard of hearing) or dumb only (tongue-tied) as deaf-mutes. A deaf-mute is one who can not speak, because he can not hear sufficiently well to learn to speak.

Enumerators may obtain valuable hints as to the number of deaf-mutes, and their residence, from physicians who practice medicine in their respective districts, also from school-teachers.

Great assistance may be derived from questions addressed to deaf-mutes themselves: Do you know any deaf-mutes in this neighborhood? The class feeling of the deaf and dumb, arising from their isolated state, is so great that they seek each other out for the sake of companionship, and ordinarily know every deaf-mute for miles around.

NOTE A.—A deaf-mute may be found either at his own home, or away from it, in some educational institution, asylum, or poorhouse. In the latter case, his residence when at home must be stated, in order that he may be accredited to the State or county to which he properly belongs, and that the county in which the institution is situated may not be charged with more than its due proportion of deaf-mutes.

NOTE B.—If self-supporting, say "Yes;" if partly self-supporting, say "Partly;" if not, say "No." Indicate all inmates of institutions who are maintained or treated at their personal expense (not at the expense of any town, county, or State, nor of the institution) by the word "Pay."

NOTE C.—If a deaf-mute from birth, say "B;" if not, state the age at which deafness occurred. Special pains should be taken to indicate all deaf-mutes from birth.

NOTE D.—The word "semimute" has a technical meaning, and denotes a deaf-mute who lost his or her hearing after having acquired at least a partial knowledge of spoken language. Some semimutes retain the ability to speak imperfectly, others lose it entirely. If a deaf-mute has ever learned to speak, he is a semimute (unless he was artificially taught to speak in an institution for deaf-mutes).

By a semideaf person is meant one who can not hear sufficiently well to comprehend what is said to him, but who hears very loud sounds, such as thunder, etc.

NOTE E.—In making entries in columns 14, 15, and 16, an affirmative mark only will be used, thus: /.

SUPPLEMENTAL SCHEDULE No. 4.—BLIND inhabitants in ....., in the County of ....., State of ....., as enumerated by me June, 1880. ...., Enumerator.

Page No.; Supervisor's district No.; Enumeration district No.

Number taken from schedule No. 1:

1. Number of page.
2. Number of line.
3. Name.  
Residence when at home (see note A):
4. City or town.
5. County (if in same State) or State (if in some other State).
6. Is he (or she) self-supporting or partly so? (See note B.)
7. Age at which blindness occurred. (See note C.)
8. Form of blindness. (See note D.)
9. Supposed cause of blindness, if known.  
(See note F):
10. Is the person totally blind? (See note E.)
11. Is the person semibind? (See note E.)

## Institution life:

12. Has this person ever been an inmate of an institution for the blind? If yes, give the name of such institution.
13. What has been the total length of time spent by him (or her) in any such institution?
14. Date of his (or her) discharge (year only).  
(See note F):
15. Is this person also insane?
16. Is he (or she) also idiotic?
17. Is he (or she) also a deaf-mute?

The object of this supplemental schedule is to furnish material not only for a complete enumeration of the blind, but for an account of their condition. It is important that every inquiry respecting each case be answered as fully as possible. Enumerators will, therefore, after making the proper entries upon the Population Schedule (No. 1), transfer the name (with schedule page and number) of every blind person found, from schedule No. 1 to this special schedule, and proceed to ask the additional questions indicated in the headings of the several columns.

In this enumeration will be included not only the totally blind, but also the semi-blind. No person will be carried on this schedule, however, who can see sufficiently well to read. For the distinction between the totally blind and the semiblind see note E; it is of the greatest importance to note this distinction with care, by making the proper entry in columns 10 or 11.

NOTE A.—A blind person may be found either at his own home or away from it in some educational institution, asylum, or poorhouse. In the latter case, his residence when at home must be stated, in order that he may be accredited to the State or county to which he properly belongs, and that the county in which the institution is situated may not be charged with more than its due proportion of the blind.

NOTE B.—If self-supporting, say "Yes;" if partly self-supporting, say "Partly;" if not, say "No." Indicate all inmates of institutions who are maintained or treated at their personal expense (not at the expense of any town, county, or State, nor of the institution) by the word "Pay."

NOTE C.—If blind from birth, say "B;" if not, state the age at which blindness occurred. Special pains should be taken to indicate all persons blind from birth.

NOTE D.—This question can only be answered by physicians. It is not intended that it shall be asked by enumerators, but that it shall be answered by physicians connected with institutions or asylums for the blind.

NOTE E.—The totally blind are unable to distinguish forms or colors; the partially blind can distinguish forms or colors, but can not see to read, or at least not without such effort as to make reading practically impossible.

NOTE F.—In making entries in columns 10, 11, 15, 16, and 17, an affirmative mark only will be used, thus: /.

## CENSUS OF 1890.

## SUPPLEMENTAL SCHEDULE No. 1.—STATISTICS OF INSANITY.

Insane persons in ....., County of ....., State of ....., enumerated in June, 1890. ...., Enumerator.

Supervisor's district No.; Enumeration district No.

[Inquiries numbered 1 to 22, inclusive, in general population schedule are common to this supplemental schedule and are not here reproduced.]

## Physical defects:

23. Blind.
24. Deaf.
25. Able to speak so as to be readily understood (well), imperfectly (imp.), or not at all (not).
26. Whether crippled, maimed, or deformed.
27. Paralyzed.
28. Form of insanity.
29. Duration of present attack, not including previous attacks.
30. Total number of attacks, including present attack.
31. Age or period of life at which first attack occurred.
32. Supposed cause of insanity.
33. Whether also epileptic, suicidal, or homicidal.
34. Whether this person has any insane relatives.

## 204 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Whether the person has had, or now has, any insane or feeble-minded relatives, as mentioned below, with the number under each heading:

35. Brothers.
  36. Sisters.
  37. Sons.
  38. Daughters.
  39. Father.
  40. Mother.
  41. Grandfather.
  42. Grandmother.
  43. Uncles.
  44. Aunts.
  45. First cousins.
  46. If married, whether wife or husband of this person is insane, blind, deaf, or deformed from infancy.
  47. Whether this person has had any relatives who were blind, deaf, or deformed from infancy.
- Whether the person has had, or now has, any relatives, as mentioned below, who were blind or deaf from infancy, with the number under each heading:
48. Brothers.
  49. Sisters.
  50. Father.
  51. Mother.
  52. Grandfather.
  53. Grandmother.
  54. Uncles or aunts.
  55. First cousins.
  56. Length of time in this institution during present attack.
  57. Length of time spent in hospitals or asylums for insane.
  58. Whether wholly or partially supported by public or private charity, or by self, family, or relatives.
  59. Residence when at home, giving State, county, and post-office address.

### SPECIAL INSTRUCTIONS FOR FILLING SCHEDULE.

The object of this supplemental schedule is to furnish material for a complete enumeration of the insane and an account of their condition. Enumerators will, after making the proper entries upon Population Schedule No. 1, transfer to this schedule the information called for by columns 1 to 27, inclusive, for every insane person found, and proceed to ask the additional questions indicated in the headings of the columns number 28 to 59, inclusive.

Valuable hints as to the existence of insane persons in the neighborhood and their residence may be obtained from physicians in the respective districts.

The instructions necessary to the proper filling out of the columns numbered 1 to 27, inclusive, are contained in the book of instructions to enumerators, a copy of which has been supplied. The following special instructions will serve as a guide in completing the information concerning insane persons only, called for by the columns numbered 28 to 59, inclusive, in all cases where the inquiries are not self-explanatory.

Column 28. Specify whether acute or chronic, whether mania, melancholia, monomania, paresis (or general paralysis), dementia, true dipsomania, or epilepsy.

Column 29. State duration in years and twelfths of years.

Column 32. Give the name of disease, nature of injury, or other circumstance supposed to be the cause of insanity.

Column 33. State name of condition, if present.

Column 34. Write "Yes" or "No."

Columns 35 to 45. Give the number in figures under each heading, if known. Write "No," if it is known there are no such relatives. Write "Unk.," when it is unknown. With regard to grandfathers, grandmothers, uncles, aunts, and first cousins, indicate wherever possible whether the insane relatives are on the father's side by the use of the letter "F," or mother's side by the use of the letter "M," or on both by the use of the letters "FM."

Column 46. Write "W. D." (wife deaf), "W. B." (wife blind), "W. Def." (wife deformed), "H. D." (husband deaf), "H. B." (husband blind), or "H. Def." (husband deformed), etc., as the case may be.

Column 47. Give the number, and indicate as follows: Blind, "B;" deaf, "D;" deformed, "Def.;" as the case may be. If none, write "No."

Columns 48 to 55. Same instructions as under 35 to 45, but as regards blind and deaf relatives specify deaf by "D" and blind by "B."

Columns 56 and 57. Give the time in years and twelfths of years.

Column 58. Write "Wholly pub.," "Wholly priv.," "Family," "Partially self," etc., as the case may be.

Column 59. An insane person may be found either at his home or away from it in some institution, such as a hospital, asylum, or poorhouse. If away from his home, special care should be taken to give the State, county, and post-office, so that the person may be credited to the proper State or county.

#### SUPPLEMENTAL SCHEDULE No. 2.—STATISTICS OF FEEBLE-MINDEDNESS AND IDIOCY.

Feeble-minded and idiotic persons in....., County of....., State of....., enumerated in June, 1890. ...., Enumerator.

Supervisor's district No.; Enumeration district No.

[Inquiries numbered 1 to 22, inclusive, in general population schedule are common to this supplemental schedule and are not here reproduced.]

##### Physical defects:

23. Blind.
24. Deaf.
25. Able to speak so as to be readily understood (well), imperfectly (imp.), or not at all (not).
26. Whether crippled, maimed, or deformed.
27. Age or period of life at which mental defect occurred.
28. Supposed cause of mental defect.
29. Whether this person has received instruction in a special school for the feeble-minded. (Yes or no.)  
If yes, give name and location of school:
30. Name of school.
31. Location of school.
32. Length of time spent by this person in such school.
33. Length of time spent by this person in other public institutions.
- Whether paralyzed on right or left side, or both sides; if so, specify:
34. Right.
35. Left.
36. Whether this person has had, or now has, any insane or feeble-minded relatives.  
Whether this person has had, or now has, any relatives, as mentioned below, who were insane or feeble-minded from infancy, with the number under each heading:
37. Brothers.
38. Sisters.
39. Father.
40. Mother.
41. Grandfather.
42. Grandmother.
43. Uncles.
44. Aunts.
45. First cousins.
46. Whether this person has any relatives who were blind or deaf from infancy.  
Whether this person has had, or now has, any relatives, as mentioned below, who were blind or deaf from infancy, with the number under each heading:
47. Brothers.
48. Sisters.
49. Father.
50. Mother.
51. Grandfather.
52. Grandmother.
53. Uncles.
54. Aunts.
55. First cousins.
56. Whether wholly or partially supported by public or private charity, or by self, family, or relatives.
57. Residence when at home, giving State, county, and post-office address.

## SPECIAL INSTRUCTIONS FOR FILLING SCHEDULE.

The object of this supplemental schedule is to furnish material for a complete enumeration of the feeble-minded and idiotic and an account of their condition. Enumerators will, after making the proper entries upon Population Schedule No. 1, transfer to this schedule the information called for by columns 1 to 26, inclusive, for every feeble-minded or idiotic person found, and proceed to ask the additional questions indicated in the headings of the columns numbered 27 to 57, inclusive.

Valuable hints as to the existence of feeble-minded and idiotic persons in the neighborhood and their residence may be obtained from physicians in the respective districts.

The instructions necessary to the proper filling out of the columns numbered 1 to 26, inclusive, are contained in the book of instructions to enumerators, a copy of which has been supplied. The following special instructions will serve as a guide in completing the information concerning feeble-minded and idiotic persons only, called for by the columns numbered 27 to 57, inclusive, in all cases where the inquiries are not self-explanatory.

Columns 32 and 33. Give the time in years and twelfths of years.

Columns 34 and 35. Write "Yes" or "No" in one or both columns, according to side or sides paralyzed.

Column 36. Write "Insane" or "Feeble-minded," as the case may be. If none, write "No."

Columns 37 to 45. Give the number in figures under each heading, if known. Write "No" if it is known there are no such relatives. Write "Unk." when it is unknown. With regard to grandfathers, grandmothers, uncles, aunts, and first cousins, indicate wherever possible whether the insane or feeble-minded relatives are on the fathers' side by the use of the letter "F," or mother's side by the use of the letter "M," or on both by the use of the letters "FM."

Column 46. Give the number, and indicate as follows: Blind, "B," or deaf "D," as the case may be. If none, write "No."

Columns 47 to 55. Same instructions as under 37 to 45, but as regards blind and deaf relatives specify blind by "B" and deaf by "D."

Column 56. Write "Wholly priv.," "Family," "Partially self," etc., as the case may be.

Column 57. A feeble-minded person or idiot may be found either at his home or away from it in some educational institution, asylum, or poorhouse. If away from his home, special care should be taken to give the State, county, and post-office, so that the person may be credited to the proper State or county.

## SUPPLEMENTAL SCHEDULE No. 3.—STATISTICS OF THE DEAF.

Deaf persons in ....., County of ....., State of ....., enumerated in June, 1890.  
....., Enumerator.

Supervisor's district No.; Enumeration district No.

[Inquiries numbered 1 to 22, inclusive, in general population schedule are common to this supplemental schedule and are not here reproduced.]

Physical or mental defect:

23. Feeble-minded or insane.
24. Blind.
25. Able to speak so as to be readily understood (well), imperfectly (imp.), or not at all (not).
26. Whether crippled, maimed, or deformed.
27. Paralyzed.
28. Age or period of life at which deafness occurred. (See Instructions.)
29. Supposed cause of deafness.
30. Whether the deafness resulted from military service.
31. Whether this person can hear a warning shout in case of danger.
32. Whether this person has received instruction in a school for the deaf.
33. Length of time spent by this person in schools for the deaf.
34. Means by which this person usually communicates with hearing persons—by speech (speech), by writing (wr.), by finger spelling (fr.), by sign or gestures (s), or by two or more of these methods.
35. Whether this person has had or now has any deaf relatives.

Whether this person has had or now has any relatives, as mentioned below, so deaf as to be unable to hear loud conversation, and in whom deafness occurred before 50 years of age, with the number under each heading:

36. Brothers.
  37. Sisters.
  38. Sons.
  39. Daughters.
  40. Father.
  41. Mother.
  42. Grandfather.
  43. Grandmother.
  44. Uncles.
  45. Aunts.
  46. First cousins.
  47. If married, whether this person's husband or wife has deaf relatives.
  48. If married, whether this person's husband or wife is deaf. (Yes or no.)
  49. If yes, the age or period of life at which the husband or wife became deaf.
  50. Number of children born to this couple. (If none, write none.)
  51. Number of these children that were deaf.
  52. Whether this person has had or now has any relatives who were blind, feeble-minded, or insane from infancy.
- Whether this person has had or now has any relatives, as mentioned below, who are blind, feeble-minded, or insane, with the number under each heading:
53. Brothers.
  54. Sisters.
  55. Father.
  56. Mother.
  57. Grandfather.
  58. Grandmother.
  59. Uncles.
  60. Aunts.
  61. First cousins.
  62. Whether wholly or partially supported by public or private charity, or by self, family, or relatives.
  63. Residence when at home, giving State, county, and post-office address.

#### SPECIAL INSTRUCTIONS FOR FILLING SCHEDULE.

The object of this supplemental schedule is to furnish material for a complete enumeration of the deaf and an account of their condition. Enumerators will, after making the proper entries on Population Schedule No. 1, transfer to this schedule the information called for by columns 1 to 27, inclusive, for every deaf person found, and proceed to ask the additional questions indicated by the headings of the columns numbered 28 to 63, inclusive.

The questions on this schedule are to be asked with regard to every person who is too deaf to be taught in ordinary schools for hearing persons, or who can not hear conversation carried on in a loud tone of voice. If the person is merely "hard of hearing," or if there is doubt whether the deafness is sufficient to cause the disability above named, the person should not be entered on this schedule.

Valuable hints as to the existence of deaf persons in the neighborhood and their residence may be obtained from physicians, from school teachers, and from deaf persons themselves in the respective districts.

The instructions necessary to the proper filling out of the columns numbered 1 to 27, inclusive, are contained in the book of instructions to enumerators, a copy of which has been supplied. The following special instructions will serve as a guide in completing the information concerning deaf persons only, called for by the columns numbered 28 to 63, inclusive, in all cases where the inquiries are not self-explanatory.

Column 28. This question is very important. If deaf from birth, write "B;" if not, state the age at which deafness occurred. If the exact age can not be ascertained, state the period of life at which deafness occurred, viz: Infancy "Inf." (under 4 years of age); childhood "Ch." (under 10 years); youth "Yo." (under 20 years); adult life "Ad." (from 20 to 50); old age "Old" (over 50). If the age or period of life can not be ascertained, state the reason why it can not.

Column 29. Give the name of disease or injury, if known.

Columns 30, 31, and 32. Write "Yes" or "No."

Column 33. Give the time in years and twelfths of years.

Column 34. The answer may be that the person communicates by one, by two, or by all the methods named. Record all the methods given in response to this inquiry.

Column 35. Write "Yes" or "No."

Columns 36 to 46. Give the number in figures under each heading, if known. Write "No," if it is known there is no such relatives. Write "Unk." when it is unknown. With regard to grandfathers, grandmothers, uncles, aunts, and first cousins, indicate wherever possible whether the deaf relatives are on the father's side by the use of the letter "F," or mother's side by the use of the letter "M," or on both by the use of the letters "FM."

Column 47. Write "Yes" or "No." This question should be asked of hearing husbands and wives as well as of those who are deaf.

Column 52. Give the number, and indicate as follows: Blind "B;" feeble-minded "F," or insane "I," as the case may be. If none, write "No."

Columns 53 to 61. Same instructions as under 36 to 46, but as regards blind, feeble-minded, or insane relatives specify "blind by "B," insane by "I," and feeble-minded by "F."

Column 62. Write "Wholly pub.," "Wholly priv.," "Family," "Partially self," etc., as the case may be.

Column 63. A deaf mute may be found either at his home or away from it in some educational institution, asylum, or poorhouse. Special care should be taken to give the State, county, and post-office, so that the person may be credited to the proper State or county.

#### SUPPLEMENTAL SCHEDULE No. 4.—STATISTICS OF THE BLIND.

Blind persons in ....., County of ....., State of ....., enumerated in June, 1890. ...., Enumerator.

Supervisor's district No.; Enumeration district No.

[Inquiries numbered 1 to 22, inclusive, in general population schedule are common to this supplemental schedule and are not here reproduced.]

##### Physical or mental defect:

23. Feeble-minded or insane.
24. Deaf.
25. Able to speak so as to be readily understood (well), imperfectly (imp.), or not at all (not).
26. Whether crippled, maimed, or deformed.
27. Paralyzed.

##### Condition of eyes and grade of blindness:

##### Whether with the right eye alone—

28. The person can see well.
29. The person can perceive light.
30. The person can count the fingers of the enumerator at a distance of one foot.

##### Whether with the left eye alone—

31. The person can see well.
32. The person can perceive light.
33. The person can count the fingers of the enumerator at a distance of one foot.

##### Cause of blindness:

34. Right eye.
35. Left eye.
- Age at which blindness occurred.
36. Right eye.
37. Left eye.

38. Whether this person has any blind relatives.

Whether this person has had, or now has, any relatives, as mentioned below, who were blind, with the number under each heading:

39. Brothers.
40. Sisters.
41. Sons.
42. Daughters.
43. Father.
44. Mother.
45. Grandfather.
46. Grandmother.
47. Uncles.
48. Aunts.
49. First cousins.

50. Length of time this person has spent in a school for the blind.
51. If married, whether marriage was before or after blindness.
52. Whether this person has any relatives who were deaf, insane, or feeble-minded from infancy.  
Whether this person has had, or now has, any relatives, as mentioned below, who were deaf, insane, or feeble-minded, with the number under each heading. (Specify deaf by D, insane by I, and feeble-minded by F):
53. Brothers.
54. Sisters.
55. Father.
56. Mother.
57. Grandfather.
58. Grandmother.
59. Uncles or aunts.
60. First cousins.
61. Whether wholly or partially supported by public or private charity, or by self, family, or relatives.
62. Residence when at home, giving State, county, and post-office address.

## SPECIAL INSTRUCTIONS FOR FILLING SCHEDULE.

The object of this supplemental schedule is to furnish material for a complete enumeration of those blind or having very defective vision in one or both eyes and an account of their condition. Enumerators will, after making the proper entries on Population Schedule No. 1, transfer to this schedule the information called for by columns 1 to 27, inclusive, for every blind person or person with very defective vision found, and proceed to ask the additional questions indicated in the headings of the columns numbered 28 to 62, inclusive.

The questions on this schedule are to be asked with regard to every person who can not with each eye separately count accurately the number of fingers of another person held up before him at a distance of one foot.

The instructions necessary to the proper filling out of the columns numbered 1 to 27, inclusive, are contained in the book of instructions to enumerators, a copy of which has been supplied. The following special instructions will serve as a guide in completing the information concerning blind persons only, called for by the columns numbered 28 to 62, inclusive, in all cases where the inquiries are not self-explanatory.

Columns 28 to 33. Write "Yes" or "No."

Columns 34 and 35. State whether blindness was congenital (congen.) or due to some general disease, such as smallpox, giving name of disease, or to disease of the eye itself, or to injury of the eye itself, or to disease of one eye following injury or disease of the other. Physicians connected with institutions or asylums for the blind are requested to reply as above, and also to state form of lesion, as cataract, glaucoma, etc.

Columns 36 and 37. If blind from birth, write "B;" if not, state the age at which blindness occurred. Special care should be taken to indicate all persons blind from birth and those in whom blindness occurred a few days or weeks after birth.

Column 38. Write "Yes" or "No."

Columns 39 to 49. Give the number in figures under each heading, if known. Write "No," if it is known there are no such relatives. Write "Unk." when it is unknown. With regard to grandfathers, grandmothers, uncles, aunts, and first cousins, indicate wherever possible whether the blind relatives are on the father's side by the use of the letter "F," or mother's side by the use of the letter "M," or on both by the use of the letters "FM."

Column 50. Give the time in years and twelfths of years.

Column 51. Write "Before" or "After," as the case may be.

Column 52. Give the number, and indicate as follows: Deaf, "D;" insane, "I," or feeble-minded, "F," as the case may be. If none, write "No."

Columns 53 to 60. Same instructions as under 39 to 49, but as regards deaf, insane, or feeble-minded relatives, specify deaf by "D," insane by "I," and feeble-minded by "F."

Column 61. Write "Wholly pub.," "Wholly priv.," "Family," "Partially self," etc., as the case may be.

Column 62. A blind person may be found either at his home or away from it in some educational institution, asylum, or poorhouse. If away from his home, special care should be taken to give the State, county, and post-office, so that the person may be credited to the proper State or county.

## 210 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### SUPPLEMENTAL SCHEDULE No. 5.—STATISTICS OF PERSONS DISEASED OR PHYSICALLY DEFECTIVE.

Persons diseased or physically defective in ....., County of ....., State of ....., enumerated in June, 1890. ...., Enumerator.

Supervisor's district No.; Enumeration district No.

[Inquiries numbered 1 to 22, inclusive, in general population schedule are common to this supplemental schedule and are not here reproduced.]

#### Defective in speech:

23. Whether so defective in speech as not to be understood—not deaf or feeble-minded. (Yes or no.)
24. Whether so defective in speech as not to be readily understood by strangers, but easily understood by immediate family—not deaf or feeble-minded. (Yes or no.)
25. Nature and cause of defect. (To be given for persons of 4 years of age and upward.)
26. Age at which defect appeared. (To be given for persons of 4 years of age and upward.)

#### Crippled and lame:

- Whether so lame as to require crutches or other means of support in walking; if so, specify the limb or joint affected.
27. Right.
28. Left.
29. Cause of lameness.
30. Age at which produced.
- Whether the person has one or more limbs which are partially or entirely useless from the results of injury or disease; if so, specify the limb or limbs or joint or joints affected.
31. Right.
32. Left.
33. Nature of such injury or disease.
34. Age at which injury or disease occurred.

#### Maimed:

- Whether the person has lost a hand, foot, or limb; if so, specify which.
35. Right.
36. Left.
37. Cause of loss of limb.
38. Age at which loss occurred.
39. Whether the person, being 20 years of age or over, is less than 4 feet 1 inch or over 6 feet 8 inches high; if so, give height in feet and inches.

#### Deformed:

40. Whether the person has marked deformity of the spine. (Yes or no.)
41. Age at which such deformity occurred.
- Whether the person has a deformed foot, hand, or limb dating from birth; if so, specify the limb so affected.
42. Right.
43. Left.

#### Paralyzed:

- Whether the person has paralysis; if so, specify the limb or parts so affected.
44. Right.
45. Left.
46. Age at which paralysis occurred.
47. Cause of paralysis.
48. Whether wholly or partially supported by public or private charity, or by self, self, family, or relatives.
49. Residence when at home, giving State, county, and post-office address.

#### SPECIAL INSTRUCTIONS FOR FILLING SCHEDULE.

The object of this supplemental schedule is to furnish material for a complete enumeration of those persons who are suffering from acute or chronic disease, or who are physically defective otherwise than deaf, blind, insane, idiotic, or feeble-minded, and an account of their condition. Enumerators will, after making the proper entries on Population Schedule No. 1, transfer to this schedule the information called for by columns 1 to 22, inclusive, for every person who is suffering from acute or chronic

disease, or who is found to be defective in speech, crippled, maimed, deformed, or paralyzed, and proceed to ask the additional questions indicated in the headings of the columns numbered 23 to 49, inclusive.

Valuable hints as to the existence of diseased or physically defective persons in the neighborhood and their residence may be obtained from physicians in the respective districts.

The instructions necessary to the proper filling out of the columns numbered 1 to 22, inclusive, are contained in the book of instructions to enumerators, a copy of which has been supplied. The following special instructions will serve as a guide in completing the information concerning diseased or physically defective persons only, called for by the columns numbered 23 to 49, inclusive, in all cases where the inquiries are not self-explanatory.

Column 25. State whether due to stammering, malformation of the mouth or lips, wounds or injury, or to paralysis. To be given for persons of 4 years of age and upward.

Column 26. State in figures the age at which the defect appeared. If from birth, write "B." To be given for persons of 4 years of age and upward.

Column 29. State whether due to disease of hip, knee, or ankle joint, or of spine, or to injury.

Column 37. State whether due to gunshot, railroad accident, frost-bite, burn, or other form of injury, or to amputation for disease.

Column 48. Write "wholly pub.," "wholly priv.," "family," "partially self," etc., as the case may be.

Column 49. A diseased or physically defective person may be found either at his home or away from it in some institution, such as a hospital, asylum, or poorhouse. If away from his home, special care should be taken to give the State, county, and post-office, so that the person may be credited to the proper State or county.

#### STATISTICS OF SPECIAL CLASSES.—INSANITY.

(Schedule for Institutions.)

Name; address; city or town; county; State.

Statement showing the number of insane patients treated in ..... by years, from 1881 to 1889, inclusive, and the annual expenditures for the same years.

NOTE.—This information is desired to continue and complete the tables given in Volume XXI of the tenth census, relating to the special classes, and giving the statistics of admission and disbursements for the preceding fifty years.

If the records of the institution do not permit the facts to be given for the *calendar years*, please state the date upon which the yearly records commence.

#### PATIENTS.

Year.	Admitted.			Discharged.			Transferred.			Died.			Remaining.		
	To- tal.	Male.	Fe- male.	To- tal.	Male.	Fe- male.	To- tal.	Male.	Fe- male.	To- tal.	Male.	Fe- male.	To- tal.	Male.	Fe- male.
1881....															
1882....															
1883....															
1884....															
1885....															
1886....															
1887....															
1888....															
1889....															

#### EXPENDITURES.

1881.....\$	1884.....\$	1887.....\$
1882.....\$	1885.....\$	1888.....\$
1883.....\$	1886.....\$	1889.....\$

Remarks.

## 212 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### STATISTICS OF SPECIAL CLASSES.—THE DEAF.

(Schedule for Schools.)

Name; address; city or town; county; State.

Statement showing the total number of pupils under instruction in . . . . ., by decades, from 1840 to 1880, and by single years, from 1880 to 1899, inclusive, and the expenditures for the same periods:

Years.	Number of pupils under instruction.			Years.	Number of pupils under instruction.		
	Total.	Male.	Female.		Total.	Male.	Female.
1840-1850.....				1880.....			
1850-1860.....				1881.....			
1860-1870.....				1882.....			
1870-1880.....				1883.....			
				1884.....			
				1885.....			
				1886.....			
				1887.....			
				1888.....			
				1889.....			

#### EXPENDITURES.

1840 to 1850..... \$	1880..... \$	1886..... \$
1850 to 1860.....	1881.....	1887.....
1860 to 1870.....	1882.....	1888.....
1870 to 1880.....	1883.....	1889.....
	1884.....	Total, 1880 to 1889.
	1885.....	

Remarks.

### STATISTICS OF SPECIAL CLASSES.—THE BLIND.

(Schedule for Schools.)

[Inquiries on special schedule for the deaf are common to this schedule and are not here reproduced.]

### CRIME, PAUPERISM, AND BENEVOLENCE.

[At the censuses of 1850 and 1860 an inquiry was made on the population schedule concerning the number of paupers and criminals, and, in addition, four or five special inquiries concerning each of these two classes were made on the schedule for social statistics. At the census of 1870 no inquiry was made on the general population schedule as to the number of such persons, but the special inquiries were repeated on the schedule for social statistics. The inquiries relating to criminals and paupers at these three censuses are contained in the schedule for "Social Statistics."]

At the censuses of 1880 and 1890 the inquiries relating to paupers and criminals, and, also, to the inmates of benevolent institutions, were contained in a series of supplemental schedules, the inquiries being printed at the heads of columns and the entries concerning each person returned thereon being made on horizontal cross-lines. In 1890 the inquiries relating to the general population were reproduced, for convenience, on each supplemental schedule. The supplemental schedules in 1880 contained spaces for 50 entries to each page, and in 1890 for 15 entries to each schedule, the inquiries (including those relating to population) in 1890 occupying three pages and being contained in two series of columns to each page. Besides the supplemental schedules, special blanks were also used in 1880 and 1890 to obtain additional data concerning the criminal element of the population. In two of the special blanks used in 1880, namely, "Abstract of Criminal Docket" and "Justice's Return," the inquiries were printed at the heads of columns and the entries were made on horizontal cross lines. The remaining special blank used in 1880, as well as the one used in 1890, related to police statistics and called for a separate return by each city and town to which it was applicable.]

## CENSUS OF 1880.

SUPPLEMENTAL SCHEDULE No. 5.—HOMELESS CHILDREN (in institutions) in ....., in the County of ....., State of ....., enumerated by me June, 1880. ...., Enumerator.

Page No.; Supervisor's district No.; Enumeration district No.

Number taken from schedule No. 1:

1. Number of page.
2. Number of line.
3. Name.  
Residence when at home (see note A):
4. City or town.
5. County (if in same State), or State (if in some other State).
6. Is this child's father deceased?
7. Is this child's mother deceased?
8. Has this child been abandoned by his (or her) parents?
9. Has this child's parents surrendered the control over him (or her) to the institution?
10. Was this child born in the institution?
11. If not so born, state year when admitted.
12. Is the child illegitimate?
13. Is this child separated from his or her (living) mother?
- Antecedents:
14. Has he (or she) ever been arrested? If yes, for what alleged offense?
15. Has he (or she) ever been convicted or sentenced?
16. Has the origin of this child been respectable?
17. Has he (or she) been rescued from criminal surroundings?
- (See note B):
18. Is this child blind?
19. Is he (or she) a deaf-mute?
20. Is he (or she) an idiot?

The object of this supplemental schedule is to furnish material not only for a complete enumeration of children in institutions, but for an account of their condition. It is important that every inquiry respecting each case be answered as fully as possible. Enumerators will, therefore, after making the proper entries upon the Population Schedule (No. 1), transfer the name (with schedule page and number) of every child found in any institution designed for the care of poor or homeless children, or in any poorhouse or other asylum for the destitute, from schedule No. 1 to this special schedule, and proceed to ask the additional questions indicated in the headings of the several columns. Special attention is called to the questions respecting the child's antecedents, which are designed to bring out the proportion of children in institutions who belong to the respectable and to the vicious classes severally.

NOTE A.—Children in institutions may not be residents of the county or State in which the institution is situated, and in that case their residence when at home should be stated, in order that they may be accredited to the State or county to which they properly belong, and that the county in which the institution is situated may not be charged with more than its due proportion of dependent children.

NOTE B.—In making entries in columns 18, 19, and 20 an affirmative mark only will be used thus: /

SUPPLEMENTAL SCHEDULE No. 6.—INHABITANTS IN PRISON in ....., in the County of ....., State of ....., June 1, 1880. ...., Enumerator.

Page No.; Supervisor's district No.; Enumeration district No.

Number taken from schedule No. 1:

1. Number of page.
2. Number of line.
3. Name.  
Residence when at home (see note A):
4. City or town.
5. County (if in same State), or State (if in some other State).
6. Place of imprisonment: (State penitentiary or prison, county penitentiary or jail, workhouse, house of correction, city prison, station house, lockup, or calaboose.)
7. Is this person a United States, State, or city prisoner? (If United States, say "U. S.")

Why in prison (see note B):

8. Is he (or she) awaiting trial?
9. Is he (or she) serving a term of imprisonment?
10. Is he (or she) serving out a fine?
11. Is he (or she) awaiting execution (death)?
12. Is he (or she) sentenced to some higher prison and awaiting removal?
13. Is he (or she) held as a witness?
14. Is he (or she) imprisoned for debt?
15. Is he (or she) imprisoned for insanity?
16. Date of incarceration. (Give day of month and the year, the latter in two figures, thus: Jan. 15, '79.)
17. Alleged offense.  
Sentence:
  18. Amount of fine imposed.
  19. Number of days in jail or workhouse.
  20. Number of years in penitentiary.
21. Is this prisoner at hard labor? If yes, what? (Shoe shop, cigar shop, cooper shop, stone cutting, prison duties, mining, labor on farm or plantation, etc.)
22. If at hard labor, is he (or she) working inside or outside the prison walls?
23. Is his (or her) labor contracted out?

The object of this supplemental schedule is to furnish material not only for a complete enumeration of prisoners, but for an account of their condition. It is important that every inquiry respecting each case be answered as fully as possible. Enumerators will, therefore, after making the proper entries upon the Population Schedule (No. 1), transfer the name (with schedule page and number) to this special schedule, and proceed to ask the additional questions indicated in the headings of the several columns.

In addition to the enumeration of prisoners required in this special schedule, enumerators will also, in all cases (even though there should not be any prisoners in confinement upon the first of June), ask the warden or keeper of every prison, station house, or lockup in their respective districts the questions respecting the number of prisoners in confinement during the year ending May 31, 1880, and record the answers.

NOTE A.—Prisoners may not be residents of the county or State in which the prison, station-house, or lockup is situated, and in that case their residence when at home, or the place where they were arrested or tried, should be stated, in order that they may be accredited to the State or county to which they properly belong, and that the county in which the prison, station-house, or lockup is situated may not be charged with more than its due proportion of prisoners.

NOTE B.—In making entries in columns 8 to 15, inclusive, an affirmative mark will only be used, thus: /.

*Additional questions to be asked of the chief executive officer of each and all prisons in the United States.*

Question 1. What is the total number of persons who have been imprisoned in the ..... (a), in the county of ....., State of ....., during the year ending May 31, 1880?

Question 2. Of this total number, how many have been imprisoned in the said prison to serve out sentences imposed for crimes and misdemeanors? Total; native white males; native colored males; native white females; native colored females; foreign males; foreign females.

Question 3. How many have been held upon other grounds, as debtors, witnesses, insane, or pending trial, without having been convicted of any offense? Total; native white males; native colored males; native white females; native colored females; foreign males; foreign females.

Question 4. What is the total number of days' imprisonment during the year ending May 31, 1880, of all persons who have been confined in this prison? (This number is to be found by adding the number of days' imprisonment of each prisoner and stating the sum).

Question 5. Is payment made for maintenance of prisoners by a per diem allowance to the sheriff, jailer, or keeper; and if yes, how many cents a day? What was the total amount of this per diem allowance during the year ending May 31, 1880? If such allowance is made, state the actual cost of maintenance of prisoners during the year.

---

a Name the prison.

**SUPPLEMENTAL SCHEDULE No. 7.—PAUPER AND INDIGENT INHABITANTS** (in institutions, poorhouses, or asylums, or boarded at public expense in private houses) in ....., in the county of ....., State of ....., June 1, 1880.

....., Enumerator.

Page No.; Enumeration district No.

Number taken from schedule No. 1:

1. Number of page.
2. Number of line.
3. Name.  
Residence when at home (see note A):
4. City or town.
5. County (if in same State), or State (if in some other State).  
How supported? (See note B.)
6. At cost of city or town?
7. At cost of county?
8. At cost of State?
9. At cost of institution?
10. Is this person able-bodied?
11. Is he (or she) habitually intemperate?
12. Is he (or she) epileptic?
13. Has he (or she) ever been convicted of crime?
14. If disabled, state form of disability (crippled, consumption, dropsy, old age, lying-in, etc.)
15. Was this person born in this institution? (See note B.)
16. Date of admission. (Give day of month and the year, the latter in two figures, thus: "Jan. 15, '79.")  
What other members of the family of this person are in this establishment?  
(See note B.)
17. Husband?
18. Wife?
19. Mother?
20. Father?
21. Sons—how many?
22. Daughters—how many?
23. Brothers—how many?
24. Sisters—how many?  
(See note B):
25. Is this person also blind?
26. Is he (or she) deaf and dumb?
27. Is he (or she) insane?
28. Is he (or she) idiotic.

The object of this supplemental schedule is to furnish material not only for a complete enumeration of paupers, but for an account of their condition. It is important that every inquiry respecting each case be answered as fully as possible. Enumerators will, therefore, after making the proper entries upon the Population Schedule (No. 1), transfer the name (with schedule page and number) to this special schedule and proceed to ask the additional questions indicated in the headings of the several columns.

In case any person enumerated on this special schedule is blind, deaf and dumb, insane, or idiotic (see columns 25 to 28, inclusive), the particulars of such case will also be carried on such other special schedule, as the case may be.

In addition to the enumeration of paupers required in this schedule, enumerators will also ask the keeper of every institution designed for the maintenance of the destitute the questions respecting the number of paupers during the year ending May 31, 1880, and record the answers.

**NOTE A.**—Paupers may not be residents of the county or State in which the institution designed for the maintenance of the destitute is situated, and in that case their residence when at home, or the place from whence they came to such institution, should be stated, in order that they may be accredited to the State or county to which they properly belong, and that the county in which the institution is situated may not be charged with more than its due proportion of paupers.

**NOTE B.**—In making entries in columns 6, 7, 8, 9, 15, 17, 18, 19, 20, 25, 26, 27, and 28, inclusive, an affirmative mark only will be used, thus: /. In columns 10, 11, 12, and 13, inclusive, say "Yes" or "No," as the case may be. Columns 21, 22, 23, and 24 should be filled by inserting the numbers which correctly answer the query: How many sons, daughters, brothers, sisters, respectively, has this person in this institution?—If none, use the zero (0).

## 216 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

*Additional questions to be asked of the chief executive officer of each and all pauper establishments (including homes and asylums for the aged, for the destitute, and for the friendless) in the United States.*

Question 1. What is the total number of persons who have been inmates of this institution at any time for a longer or shorter period, during the year ending May 31, 1880? Total; native white males; native colored males; native white females; native colored females; foreign males; foreign females.

Question 2. What is the total number of days' board furnished to inmates during the year ending May 31, 1880? (This number is to be found by taking the sum of the number of days' board furnished to each inmate. By days' board is meant the number of days during which each person was retained as an inmate.)

Question 3. If paupers in this establishment are supported at the expense of the town, county, or State, is payment made for their maintenance by a weekly or monthly allowance to the keeper; and if yes, how much is the said allowance? What was the total amount of such allowance during the year ending May 31, 1880?

Question 4. If no such allowance is made, what was the actual cost of maintenance of pauper or destitute inmates of the institution during the year ending May 31, 1880? The enumerator in each district will also ascertain, if possible, and state the name, official title or position, and post-office address of the supervisor, superintendent, overseer, poor master, or other town, city, or county officer who is charged with the relief of the poor at their own homes or elsewhere outside of institutions, in order that inquiries may be hereafter addressed to them (by mail) respecting the amount and cost of out-door relief.

### ABSTRACT OF CRIMINAL DOCKET.

..... Court, at ....., County of ....., State of .....

1. Term.  
Docket number:
2. Original docket number.
3. Term docket number.
4. Name of accused.  
Sex:
5. Male.
6. Female.
- Color:
7. White.
8. Black.
9. Offense charged.  
Cases disposed of without trial:
10. Dismissed.
11. Off docket.
12. Nolle pros.
13. Quashed.
14. Certified.
15. Jumped bail.
16. Insane.
17. Died.  
Cases tried:
18. Jury.
19. Court.
20. Acquitted.
21. Convicted.
22. Plead guilty.  
Sentences imposed:
23. Fine.
24. Lashes.
25. Hard labor for county.  
State prison:
26. Life.
27. Years.
28. Months.  
Minor prison:
29. Months.
30. Days.

## Reformatory institution:

- 31. Years.
- 32. Months.
- 33. Minority.
- 34. Death.
- Cases still pending June 30, 1880:
- 35. Continued.
- 36. In custody.
- 37. Out on bail.
- 38. Not arrested.

NOTE A.—Include all terms ending on any day between June 1, 1879, and June 1, 1880, and no other.

NOTE B.—Where indictments are found against two or more persons, enter each person; where one or more counts are included in one indictment, enter each count as a separate case.

NOTE C.—In column 4 it is not necessary to write the Christian, or given, names in full; initials will answer, provided care is taken to indicate the sex of each person.

NOTE D.—In column 8 include all persons not white.

NOTE E.—The disposition made of each case should be shown by a mark (/) in the proper column. Take care not to make any mark in a wrong column.

NOTE F.—The word "dismissed" in column 10 applies to all cases stricken from docket without leave to reinstate; where leave to reinstate is given, enter the case in column 11.

NOTE G.—The word "certified" in column 14 means transferred to any superior or inferior court, or removed on change of venue.

NOTE H.—Columns 15, 16, and 17 apply to persons accused. In column 15 note all bail bonds forfeited; in column 16 all prisoners charged with crime released previous to trial on the ground of insanity, whether afterwards sent to an asylum or not; in column 17 all cases in which a prisoner awaiting trial dies before trial is had.

NOTE I.—In columns 18 and 19 indicate whether the case was tried with or without a jury.

NOTE K.—In column 23 state the amount of fine imposed; in column 24, the number of lashes; in column 25, the number of months to which a prisoner is sentenced to hard labor for the county or in the chain gang.

NOTE L.—By "State prison" is meant a prison to which felons are sent, and of which the State has control, or at which prisoners are kept at State expense; by "minor prison," any prison of inferior grade, including jails, workhouses, houses of correction, bridewells, etc.; by "reformatory institutions," any institution for the detention and reformation of juvenile offenders.

NOTE M.—Jail sentences for any number of hours less than one day should be entered as one day.

NOTE N.—Sentences to a reformatory institution "until reformed," may be entered in column 33.

NOTE O.—In column 34, where the sentence of death has been executed prior to June 1, 1880, indicate the execution by a ring drawn around the mark, thus:  $\oslash$

NOTE P.—In column 35 all cases pending and not decided June 1, 1880 (or at the close of any term, if continued cases are brought down by the clerk), should be indicated; and in columns 36, 37, and 38 the position of the accused should be noted, whether in prison, or at large on bail, or not found, as the case may be.

NOTE Q.—If the proper entries are made and the columns footed up, the work should prove: The number of cases disposed of without trial, added to the cases tried and the cases still pending, should equal the number of cases entered on the docket. The necessary corrections to show the number of persons as distinguished from cases, and how many of the continued cases were still pending June 1, 1880, can be made by this office, if the entries are fully and carefully made by the clerks of courts.

## JUSTICE'S RETURN.

Made by ..... Official title: ..... P. O. address: ....., County of ....., State of .....

Number of bastardy bonds taken: .....

Number of bonds to keep the peace given: .....

- 1. Docket number (if any).
- 2. Names of persons charged with offenses.
- 3. Sex.

## 218 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

4. Color.
5. Offenses charged.  
Cases disposed of without trial:
6. Change of venue.
7. Discharged without trial.
8. Committed without bail.
9. Bound over.
- Cases tried:
10. Acquitted.
11. Convicted.
12. Plead guilty.
13. Appeals taken.
- Sentenced:
14. Fined (dollars).
- Imprisoned:
15. To what prison sent.
16. Months.
17. Days.
18. Lashes (number).
19. Hard labor for county (months).

NOTE A.—Indicate in which column any case would properly be included by a straight mark, as shown in the accompanying illustrative example.

NOTE B.—In column 2 the Christian, or given, name need not be written out in full, provided care is taken to indicate the sex in the column following.

NOTE C.—By "change of venue" in column 6 is meant where the case is sent before another justice for trial, either for want of local jurisdiction, or on demand of the prisoner, or for any other reason. Do not include in this column cases where the prisoner is bound over to a higher court.

NOTE D.—A preliminary examination should not be recorded as a trial, even although evidence is heard both for and against the prisoner. Columns 10, 11, and 12 are intended for cases where there is an actual trial had, and the charge is finally disposed of either by acquittal or sentence.

NOTE E.—In column 9 include cases where the accused is bound over to appear again, either before yourself or before a higher court, or to await action of the grand jury.

NOTE F.—It is not necessary to record any case in both columns 11 and 12. If a prisoner pleads guilty, the fact may be shown by a mark in column 12. Column 11 is intended only for those who are convicted after trial before you.

NOTE G.—Please be particular to note all appeals taken in column 13. This is of importance, as it will be of use in comparing and correcting returns received from clerks of courts of record.

NOTE H.—In column 15 indicate the description of prison to which accused was sentenced; that is, state whether to a county jail, city prison, workhouse, house of correction, etc.

NOTE I.—In recording the length of sentences treat a fractional part of a day as one day. Thus, if a prisoner is sentenced for six hours, enter the sentence as one day.

NOTE J.—Under "Hard labor for county," include sentences to the "chain gang," as well as all other sentences to labor outside the prison walls.

### POLICE DEPARTMENTS.

Report made to the United States Census Office by the Police Department of the ..... of ....., County of ..... and State of .....

1. What is the name of your city; is it, properly speaking, a city, a borough, a town, or a village; is it incorporated; and if so, can you state the year in which the charter was granted; and also where a printed copy of the charter can be found or obtained?  
Were you incorporated under a general statute?
2. How many square miles are included in the city limits; and of this area how many square miles are actually patrolled?
3. Have you a board of police commissioners; and if so, by what title are they legally called?  
Of how many members does this board consist?  
How are they appointed; and what is the duration of their term of office?  
If you have not such a board, in whom is the police authority vested?

4. What is the name of the superintendent, chief, or marshal in command of the department?  
What is his official title?  
How appointed?  
And for what term; at what date does his term of office expire?
5. What is the number of patrolmen employed in your department; of mounted police, if any; of detectives; of river and harbor policemen?
6. What is the number of officers above the grade of patrolmen (commissioners, inspectors, chiefs, captains, sergeants, etc.); number of each rank?  
Total number of officers and privates.
7. Where do you imprison arrested persons?  
Have you any station-house or station-houses, lockup, calaboose, or anything of the sort; and by what name is such prison known; how many cells does it contain?  
If only one cell or apartment, what are its inside dimensions? — feet by — feet.  
[If you have more than one station house or lockup, please give a list of the same, with the location and number of cells in each.]
8. Have you any city prison, workhouse, or house of correction, used for the confinement and punishment of offenders, after conviction? If so, please give the legal title of such prison; also the name and official title of the officer in charge to whom blank forms for return of movement of population should be sent; his correct post-office address; the capacity of such prison; and the number of cells.
9. Do you make any annual report, and at what date?  
Is your last report printed? If printed, please send a copy to Mr. —, for the use of this office. This favor would be increased if you could also furnish a copy of your city ordinances.
10. During your last police year what was the total number of arrests made; of natives; and of foreigners; of men; and of women? What was the number of arrests for crimes; and what for violation of city ordinances? Of the arrests for crimes, how many were for felonies; and how many for misdemeanors?
11. Please furnish a classified statement of arrests and of the disposition made of them, by filling the following table, as far as possible, from your last printed or written report on file.  
Table showing arrests made and disposition of the same, during the twelve months from ..... 18—, to ..... 18—.

Offenses.	Number of arrests made.	Discharged at station.	Discharged by court, on examination.	Fined.	Sentenced.
<b>Against the person.</b>					
Homicide (including murder and manslaughter) .....					
Rape .....					
Assaults (all sorts) .....					
Other offenses against the person .....					
<b>Against property.</b>					
Arson (including attempts) .....					
Burglary .....					
Robbery .....					
Larceny, grand .....					
Larceny, petit .....					
Larceny from the person .....					
Receiving stolen goods .....					
Frauds (including confidence game) .....					
Forgery .....					
Other offenses against property .....					
<b>Miscellaneous.</b>					
Drunk .....					
Disorderly .....					
Drunk and disorderly .....					
Disorderly house .....					
Gaming house .....					
Violations of liquor law .....					
Violations of city ordinances .....					
Vagrancy .....					
Truancy .....					
All other offenses .....					
Total .....					

Offenses.	Sentence suspended.	Bound over for trial.	Bound over for good behavior.	Delivered to other authorities.	Cases still pending.
Against the person.					
Homicide (including murder and manslaughter) .....					
Rape .....					
Assaults (all sorts) .....					
Other offenses against the person .....					
Against property.					
Arson (including attempts) .....					
Burglary .....					
Robbery .....					
Larceny, grand .....					
Larceny, petit .....					
Larceny from the person .....					
Receiving stolen goods .....					
Frauds (including confidence game) .....					
Forgery .....					
Other offenses against property .....					
Miscellaneous.					
Drunk .....					
Disorderly .....					
Drunk and disorderly .....					
Disorderly house .....					
Gaming house .....					
Violations of liquor law .....					
Violations of city ordinances .....					
Vagrancy .....					
Truancy .....					
All other offenses .....					
Total .....					

12. It often happens that persons when arrested by the police are charged in the station-house books with one offense and committed by the magistrate for some other. It is of course preferable, where it can be done equally well, to classify arrests according to the character of the offenses as determined by the commitment or indictment found. Please state on which of these two principles the classification in the above table has been made.
13. What was the number of lodgers during the year in station-houses; males; females.
14. What was the total number of houses broken into or entered with a criminal intent?  
The number of fires supposed to have been incendiary in their origin; and the number of murders or homicides? (These questions relate to the number of crimes known to have been committed, irrespective of the number of arrests made.)
15. What was the estimated value of property destroyed by incendiarism?
16. What was the value of property reported stolen; what was the value of property known to have been stolen, but not reported by the owner; and the estimated value of property recovered?
17. What was the number of lost children found; and of children under 16 years of age arrested for crimes or for vagrancy? What disposition is made by the department of vagrant or abandoned children?
18. What is the number of known houses of prostitution in your city, and of known prostitutes; also, of liquor saloons? Is the sale of liquor at retail licensed or prohibited; and if licensed, what is the amount of the fee required to obtain a license? What was the revenue from this source during the last fiscal year; and what disposition is made by law of funds thus received?
19. What is the practice of the department respecting drunken men; are they ordinarily arrested and taken to the cooler; or are they taken home?
20. What is your practice respecting prostitutes? Is prostitution treated as a necessary evil, and interfered with only to such an extent as to keep it within bounds of decency and social order, or are raids and arrests made frequently and persistently with a view to its eradication or suppression?
21. Do you stimulate arrests by rewards or by keeping a record of the number of arrests made by each patrolman?
22. Does the department ever promise immunity to criminals in consideration of exposing or testifying against their confederates?
23. What was the total cost of your department during the last police year, and of this amount how much was paid to officers; how much to men; and how much for all other expenses?

24. Please furnish, if possible, a list of police magistrates or justices of the peace having criminal jurisdiction in your city.

NOTE.—The importance of complete and accurate criminal statistics for the United States will be appreciated by no class of officials more than by intelligent officers of police. But there can be no criminal statistics of value which do not include a view of the work done by the police in preventing crime and in bringing offenders to justice. The statistics of our police departments have never before been collected and tabulated. The Superintendent of the Census designs making a special report upon this subject, which will be of great value, provided he receives the cordial support and cooperation of the departments, which he has every reason to anticipate. A full and prompt reply, therefore, to the questions contained in the following schedule is earnestly solicited. Chiefs of police to whom this blank is sent will confer a favor by replying to every question, or if that is impracticable, by leaving as few questions unanswered as possible.

The word "police department" as here used is intended to have a very wide sense, and to include every form of police work, even arrests by town and village constables. Police powers are generally conferred by the statutes upon every municipal organization within a State; and no account of the criminal procedure in the United States is complete without a full report of arrests made, whether by chiefs of police, marshals, or constables.

A postal card is inclosed, on which the receipt of this blank may be acknowledged, and sufficient information given, to enable the census office to prepare a correct list of city prisons, lockups, etc.; also of heads of police departments throughout the country. It is requested that this postal card may be filled and returned immediately, the larger blank to be filled and returned as soon as practicable.

### CENSUS OF 1890.

#### SUPPLEMENTAL SCHEDULE No. 6.—STATISTICS OF BENEVOLENCE.

Persons in benevolent institutions in ....., County of ....., State of ....., enumerated in June, 1890. ...., Enumerator.

Supervisor's district No.; Enumeration district No.

[Inquiries numbered 1 to 22, inclusive, in general population schedule are common to this supplemental schedule and are not here reproduced.]

#### Physical or mental defect:

- 23. Insane.
- 24. Idiotic.
- 25. Deaf-mute.
- 26. Blind.
- 27. Crippled, maimed, or deformed.
- 28. When admitted to this institution.
- 29. Whether able-bodied.

#### Cause of admission or retention:

- 30. Insanity.
- 31. Idiocy.
- 32. Tramp.
- 33. Habitual drunkard.
- 34. Old and infirm.
- 35. Bedridden.
- 36. Deformed.
- 37. Crippled.
- 38. Epileptic.
- 39. Paralytic.
- 40. Syphilitic.
- 41. Rheumatic.
- 42. Lying-in case.
- 43. No other home.

#### How supported:

- 44. At cost of State.
- 45. At cost of county.
- 46. At cost of city or town.
- 47. At cost of friends.
- 48. At cost of this institution.
- 49. Charge per week for board, etc.

50. Residence when at home.  
 Questions relating only to children under 16 years:
- 51. Whether born in this institution.
  - 52. Whether illegitimate.
  - 53. Whether a foundling.
  - 54. Whether an orphan.
  - 55. Has this child a father living?
  - 56. Has this child a mother living?
  - 57. Whether abandoned by parents.
  - 58. Whether surrendered to this institution.
  - 59. Whether taught in this institution.
  - 60. Whether taught in the public schools.
- Whether this person has any relatives, as mentioned below, who are now inmates of this institution, with the number under each heading:
- 61. Father.
  - 62. Mother.
  - 63. Husband.
  - 64. Wife.
  - 65. Brothers.
  - 66. Sisters.
  - 67. Sons.
  - 68. Daughters.
  - 69. Grandchildren.

## SPECIAL INSTRUCTIONS FOR FILLING SCHEDULE.

The object of this supplemental schedule is to furnish material for a complete enumeration of persons in benevolent institutions in which no special enumerator has been appointed or for the enumeration of which no other provision has been made with an account of their condition. Enumerators will, after making the proper entries upon Population Schedule No. 1, transfer to this schedule the information called for by columns 1 to 27, inclusive, for every such person found, and proceed to ask the additional questions indicated in the headings of the columns numbered 28 to 69, inclusive.

The instructions necessary to the proper filling out of the columns numbered 1 to 27, inclusive, are contained in the book of instructions to enumerators, a copy of which has been supplied. The following special instructions will serve as a guide in completing the information concerning persons in benevolent institutions called for by the columns numbered 28 to 69, inclusive, in all cases where the inquiries are not self-explanatory.

It will be seen at a glance that the greater part of the questions asked are to be answered by the word "yes," or "no." A diagonal mark (/) will be understood to mean yes, a horizontal dash (—) means no. Experience has shown that where enumerators leave a space blank the clerks who handle the schedules in this office are often uncertain whether this is because the answer is no or because the correct answer is unknown. In all cases, therefore, where the answer is unknown, the space should be filled with two horizontal lines (=). If the question asked is inapplicable to the person enumerated, fill the blank by a cross-mark (X). No line of any column should be left blank.

Under the causes of admission or retention it may be necessary to make more than one affirmative mark. For instance, an inmate may be old, bedridden, or paralytic, and have no home except in this institution. A full account of the case would require a diagonal mark in each of the columns numbered 34, 35, 39, and 43.

Column 49. The charge for board, etc., refers only to inmates supported and cared for at their own expense or that of friends.

Column 53. A foundling may be illegitimate or legitimate; it may be an orphan, or its parents may be living; but it has been abandoned in infancy when only a few days old.

Column 57. An abandoned child, on the other hand, may be abandoned at any age, though not a foundling.

Column 58. Great importance attaches to a complete and accurate reply to this inquiry. A child is surrendered when papers are made out which deprive the parent or parents of authority over it, and which vest such authority and control thereafter in the institution or its officers.

Columns 59, 60. It is desired to ascertain how many children in institutions are receiving an education, and whether they are taught in the institution or in the public schools.

## SUPPLEMENTAL SCHEDULE No. 7.—STATISTICS OF CRIME.

Prisoners in jails, lockups, etc., in ....., County of ....., State of ....., enumerated in June, 1890. ...., Enumerator.

Supervisor's district No.; Enumeration district No.

[Inquiries numbered 1 to 22, inclusive, in general population schedule are common to this supplemental schedule and are not here reproduced.]

Physical or mental defect:

23. Insane.
24. Idiotic.
25. Deaf-mute.
26. Blind.
27. Crippled, maimed, or deformed.
28. Court in which arraigned or convicted.
29. Whether a Federal prisoner.
30. Offense charged.
- Date of incarceration:
31. Month.
32. Day of month.
33. Year.
34. Age when committed.
- Sentence of imprisonment:
35. Years.
36. Months.
37. Days.
- Possible reduction under good-time law.
38. Years.
39. Months.
40. Days.
41. Fine imposed, if any.
42. Rate per day, in cents.
43. Residence when at home.
44. Whether known to be a recidivist (habitual offender).
45. Number of known prior commitments to this prison.
46. Number of known prior commitments to some other prison.
47. Habits in respect of use of stimulants and narcotics.
48. Special higher education.
49. Whether ever apprenticed to learn a trade.
50. Whether a journeyman or master mechanic.
51. Employment, if any, at time of arrest.
52. Employment in prison.
53. Whether employed on contract, piece price, or public account.
- Why imprisoned:
54. Awaiting trial.
55. Serving term of imprisonment.
56. Serving out fine.
57. Awaiting execution.
58. Awaiting removal to higher prison.
59. Held as witness.
60. For debt.
61. For insanity.

## SPECIAL INSTRUCTIONS FOR FILLING SCHEDULE.

The object of this supplemental schedule is to furnish material for a complete enumeration of prisoners and juvenile delinquents found in jails, lockups, etc., in which no special enumerator has been appointed, or for the enumeration of which no other provision has been made, with an account of their condition. Enumerators will, after making the proper entries upon Population Schedule No. 1, transfer to this schedule the information called for by columns 1 to 27, inclusive, for every such prisoner or juvenile delinquent found, and proceed to ask the additional questions indicated in the headings of the columns numbered 28 to 61, inclusive.

The instructions necessary to the proper filling out of the columns numbered 1 to 27, inclusive, are contained in the book of instructions to enumerators, a copy of which has been supplied. The following special instructions will serve as a guide in

## 224 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

completing the information concerning prisoners and juvenile delinquents called for by the columns numbered 28 to 61, inclusive, in all cases where the inquiries are not self-explanatory.

It will be seen at a glance that the greater part of the questions asked are to be answered by the word "yes" or "no." A diagonal mark (/) will be understood to mean yes; a horizontal dash (—) means no. Experience has shown that where enumerators leave a space blank the clerks who handle the schedules in this office are often uncertain whether this is because the answer is no or because the correct answer is unknown. In all cases, therefore, where the answer is unknown, the space should be filled by two horizontal lines (=). If the question asked is inapplicable to the person enumerated, fill the blank by a cross-mark (X). No line of any column should be left blank.

Column 28. Write "U. S." for any Federal court, and add the name of the city or town in which it sits. If arraigned or convicted in a State court, write circuit, county, common pleas, police, etc., giving the correct title, but not the place.

Column 29. Take special pains to indicate all Federal prisoners by a diagonal mark (/).

Column 30. Give the exact technical definition of the offense. Do not say "larceny," for instance, if you know whether it was grand or petit larceny; nor "assault," if it was an assault of a specified character; nor "homicide," if you know whether he is charged with murder or, with manslaughter, etc.

Columns 31, 32, 33 are only one question. The year should be expressed by two figures only, instead of four, thus: '79, not 1879.

Column 34. The information asked can be procured by consulting the register of admission. Observe that column 6 gives the present age.

Columns 35, 36, 37 are only one question. In case of sentence for life, write the word "Life" across; if a juvenile delinquent committed until he or she shall be of age, write "Minority."

Columns 38, 39, 40 are only one question. If there is a "good-time" law in your State, and it allows, for instance, a reduction of one-fourth on a sentence of two years, write 6 in the column for months, and so in all cases.

Column 41. Enter amount of fine and costs, if added to sentence of imprisonment, or if the imprisonment is a substitute for payment of the same in money.

Column 42. State the pecuniary equivalent, in payment of fine and costs, of one day's imprisonment. For instance, if the prisoner can work out his fine at the rate of one dollar a day, write 100; if at the rate of fifty cents, write 50.

Column 43. If the prisoner is a resident of your State when at home, give his county; if not, give the name of the State in which he does reside.

Columns 45, 46. To be filled by the proper figures.

Column 47. Write "T A" for total abstainer, "M" for moderate drinker, "O" for occasional spree, and "Int" for habitually intemperate. If addicted to the use of opium or other narcotic, write the word "Opium," "Chloral," etc.

Column 48. Write "H S" for high school, "Acad" for academy, "Coll" for college, "Univ" for university, "Med" for medical college, "Law" for law school, "Theol" for theological seminary or divinity school, etc.

Columns 49, 50. These and subsequent questions are asked in response to a special request coming from representatives of organized labor, and are otherwise important.

Column 51. If not employed at time of arrest, say "Idle."

Column 52. Give name of shop in which prisoner works. If engaged in prison duty, say "Prison."

Column 53. This does not apply to those engaged in ordinary prison duties, but only to such as are employed at remunerative labor of any sort. Against their names write "P A" for public or State account, "P P" for piece price, "C" for contract, "L" for leased out.

Columns 54 to 61. The headings to these columns explain themselves. Observe that the replies are not in all cases mutually exclusive; for instance, a prisoner might be at the same time serving sentence and working out a fine. Observe also that some of the questions are not applicable to prisons for felons, or even for sentenced prisoners, but to inmates of county jails and city lockups only.

## SUPPLEMENTAL SCHEDULE No. 8.—STATISTICS OF PAUPERISM.

Pauper and indigent persons in ....., County of ....., State of ....., enumerated in June, 1890. ...., Enumerator.

Supervisor's district No.; Enumeration district No.

[Inquiries numbered 1 to 22, inclusive, in general population schedule are common to this supplemental schedule and are not here reproduced.]

## Physical or mental defect:

- 23. Insane.
- 24. Idiotic.
- 25. Deaf-mute.
- 26. Blind.
- 27. Crippled, maimed, or deformed.
- 28. When admitted to this institution.
- 29. Whether able-bodied.

## Cause of admission or retention:

- 30. Insanity.
- 31. Idiocy.
- 32. Tramp.
- 33. Habitual drunkard.
- 34. Old and infirm.
- 35. Bedridden.
- 36. Deformed.
- 37. Crippled.
- 38. Epileptic.
- 39. Paralytic.
- 40. Syphilitic.
- 41. Rheumatic.
- 42. Lying-in case.
- 43. No other home.

## How supported:

- 44. At cost of State.
- 45. At cost of county.
- 46. At cost of city or town.
- 47. At cost of friends.
- 48. At cost of this institution.
- 49. Charge per week for board, etc.
- 50. Residence when at home.

## Questions relating only to children under 16 years:

- 51. Whether born in this institution.
- 52. Whether illegitimate.
- 53. Whether a foundling.
- 54. Whether an orphan.
- 55. Has this child a father living?
- 56. Has this child a mother living?
- 57. Whether abandoned by parents.
- 58. Whether surrendered to this institution.
- 59. Whether taught in this institution.
- 60. Whether taught in public schools.

Whether this person has any relatives, as mentioned below, who are now inmates of this institution, with the number under each heading:

- 61. Father.
- 62. Mother.
- 63. Husband.
- 64. Wife.
- 65. Brothers.
- 66. Sisters.
- 67. Sons.
- 68. Daughters.
- 69. Grandchildren.

## SPECIAL INSTRUCTIONS FOR FILLING SCHEDULE.

The object of this supplemental schedule is to furnish material for a complete enumeration of pauper and indigent persons found in institutions, poor-houses, or asylums in which no special enumerator has been appointed, or for the enumeration

## 226 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

of which no other provision has been made; pauper and indigent persons boarded at public expense in private families, or persons permanently supported, either wholly or partially, at public expense at their own homes, with an account of their condition. Enumerators will, after making the proper entries upon Population Schedule No. 1, transfer to this schedule the information called for by columns 1 to 27, inclusive, for every such person found, and proceed to ask the additional questions indicated in the headings of the columns numbered 28 to 69, inclusive.

The instructions necessary to the proper filling out of the columns numbered 1 to 27, inclusive, are contained in the book of instructions to enumerators, a copy of which has been supplied. The following special instructions will serve as a guide in completing the information concerning pauper and indigent persons only, called for by the columns numbered 28 to 69, inclusive, in all cases where the inquiries are not self-explanatory.

It will be seen at a glance that the greater part of the questions asked are to be answered by the word "yes" or "no." A diagonal mark (/) will be understood to mean yes; a horizontal dash (—) means no. Experience has shown that where enumerators leave a space blank the clerks who handle the schedules in this office are often uncertain whether this is because the answer is no or because the correct answer is unknown. In all cases, therefore, where the answer is unknown, the space should be filled by two horizontal lines (=). If the question asked is inapplicable to the person enumerated, fill the blank by a cross-mark (X). No line of any column should be left blank.

Under the causes of admission or retention it may be necessary to make more than one affirmative mark. For instance, an inmate may be old, bedridden, or paralytic, and have no home except in this institution. A full account of the case would require a diagonal mark in each of the columns numbered 34, 35, 39, and 43.

Column 49. The charge for board, etc., refers only to inmates supported and cared for at their own expense or that of friends.

Column 53. A foundling may be illegitimate or legitimate; it may be an orphan, or its parents may be living; but it has been abandoned in infancy when only a few days old.

Column 57. An abandoned child, on the other hand, may be abandoned at any age, though not a foundling.

Column 58. Great importance attaches to a complete and accurate reply to this inquiry. A child is surrendered when papers are made out which deprive the parent or parents of authority over it, and which vest such authority and control thereafter in the institution or its officers.

Columns 59, 60. It is desired to ascertain how many children in institutions are receiving an education, and whether they are taught in the institution or in the public schools.

### STATISTICS OF CRIME.

#### POLICE AND POLICE STATIONS OR LOCK-UPS.

Report of the City or Town of ....., County of ....., State of ....., for the year ending December 31, 1889.

#### QUESTIONS.

1. Name and official title of the head of the police department or constabulary.
2. Number of officers on the force; number of men; number of mounted men, if any; number of harbor police.
3. Number of patrol wagons.
4. What system of electrical communication, if any, is in use?
5. Have you a city prison, calaboose, or lock-up? If so, how many?
6. Total number of cells in said prison or prisons. How many prisoners will they accommodate without overcrowding?
7. How are the sexes separated from each other?
8. Is there any prison or police matron regularly employed? If so, by whom is she paid? What is her salary? \$ ..... per .....
9. Number of arrests made by the force during the year ending December 31, 1889.
10. Actual or estimated value of property recovered and restored to its lawful owners.
11. Number of lost children restored to their homes.
12. Number of lodgers in station houses.
13. Number of known homicides.
14. Number of houses known to have been burglariously entered.
15. Number of known houses of prostitution at close of year.

16. Number of pawn shops; number of known "fences" other than pawn shops.
17. Number of licensed retail liquor saloons; number of places where beer or spirits are known to be sold without license.
18. What is the amount charged per annum for a license to sell beer or spirits at retail? \$ ....., or \$ ..... to sell beer only.
19. Number of licenses granted during the year; total revenue from this source.
20. Does the revenue from liquor licenses go into the general fund, or into some special fund? If the latter, to what special purpose is it devoted?
21. Same question as to revenue from fines.
22. Please state whether there are any Chinese in your city or town. If so, how many?
23. Are commitments made by any magistrate, judge, or court of any persons of any age and of either sex to any institution or institutions under the control of any church, sect, or religious order, or to any other private institution of a charitable or correctional nature? If so, please name the institution or institutions.
24. Is there any city or town almshouse, hospital, or other charitable institution? If so, please give its name and location.
25. You will confer a great favor upon this office if you will furnish below a list of all private or public institutions for the insane, the idiotic, the blind, the deaf, or for the homeless, the aged, the sick, or the destitute, in your city or town, with the names of the superintendents, in order that we may correspond with them.

Name of institution.	Name of chief executive officer.	Title.
(a)	(a)	(a)

a Several blank lines are printed in schedule.

### MORTALITY.

[The inquiries relating to mortality at the censuses of 1850 to 1890, inclusive, were contained on a separate schedule and were printed at the heads of columns, the entries concerning each person who died during the twelve months preceding the census day (June 1) being made on horizontal cross lines. In 1850, 1880, and 1870 spaces were provided in the schedule of inquiries for 35 entries, in 1880 for 36 entries, and in 1890 for 30 entries.]

### CENSUS OF 1850.

SCHEDULE 3.—PERSONS WHO DIED during the year ending 1st June, 1850, in ....., in the County of ....., State of ....., enumerated by me, ....., Ass't. Marshal.

1. Name of every person who died during the year ending 1st June, 1850, whose usual place of abode at the time of his death was in this family.  
Description:
  2. Age.
  3. Sex.
  4. Color—white, black, or mulatto.
  5. Free or slave.
  6. Married or widowed.
  7. Place of birth, naming the state, territory, or country.
  8. The month in which the person died.
  9. Profession, occupation, or trade.
  10. Disease or cause of death.
  11. Number of days ill.
- Remarks.

### EXPLANATION OF SCHEDULE 3.—STATISTICS OF MORTALITY.

This schedule is to be filled up in the following manner:

Insert in the heading the name or number of the district, town, or city, the county or parish, and the state, in which the persons described resided. This is to be attested on each page of each set by the signature of the assistant marshal.

The several columns are to be filled up as follows:

1. Under heading 1 insert the "name of every person who died during the year ending June 1, 1850, whose place of abode at the time of his death was in the family." The family

in which the death occurred from disease is to be considered as having been the place of abode of the deceased. It is intended that the names of all those who died, from whatever cause, within each subdivision within the last year previous to June 1 should be obtained and inserted. Where the death was *sudden*, or the *result of accident*, the *usual* place of abode should be given, although the death may have occurred during temporary absence and in another family.

2. Under heading 2, entitled "*Age*," insert in figures opposite the name the specific age in years of each person at the last birthday. If the exact age can not be ascertained, insert a number which shall be the nearest approximation to it. The age in years, either exact or estimated, is in all cases to be inserted. If the person be a child which was under one year old the entry is to be made in the fractional part of a year.

3. Under heading 3, entitled "*Sex*," insert the letter "M" for male, or "F" for female, opposite the name in all cases.

4. Under heading 4, entitled "*Color*," in all cases where the person is *white*, leave the space blank. In all cases where the person is *black*, insert the letter "B;" if mulatto, the letter "M."

5. Under heading 5, entitled "*Free or slave*," in all cases where the person is free, leave the space blank. In all cases where the person is a slave, make a letter "S" opposite his or her name.

6. Under heading 6, entitled "*Married or widowed*." This column applies only to the free inhabitants. The spaces opposite all slaves are to be left blank. When the deceased, being a free person, has been married, and the wife, or husband, as the case may be, survived, insert "M." When the deceased *has been* married, but left no wife, or husband, as the case may be, insert "W." In all other cases where the deceased is unmarried, or whether it is not known whether he or she was ever married, leave the space opposite such names blank.

7. Under heading 7, entitled "*Place of birth*." The marshal should ascertain the place of birth of the deceased. If unknown, he should insert "Unknown." If born in the town, city, or district where the deceased died, or in a foreign country, insert the name of the state, territory, government, or country of birth.

8. Under heading 8, entitled "*Month in which the person died*," insert in all cases the month when the death occurred, opposite the name of the deceased. Should it happen that the date is not known, insert "Unknown."

9. Under heading 9, entitled "*Profession, occupation, or trade*," insert the specific *profession, occupation, or trade* which the person was known or reputed to follow. Where the deceased, being an adult, had no particular occupation, insert the word "None;" when it is unknown, insert "Unknown."

10. Under heading 10, entitled "*Disease or cause of death*," insert the name of disease or cause of death opposite each name. The usual name given to a disease is to be inserted. When unknown, state "Unknown;" where by accident, as steam-boat explosion, so state; where the death was sudden, but natural, say "Sudden," and enter also the cause.

11. In column 11 state the number of days' sickness. If of long duration, insert "C," for chronic.

*Remarks.*—At the bottom of the page is left a space for remarks, where the assistant marshal should state any particular malady which has been prevalent in his district, and any cause which may account for the same. He is desired to state the character of the water, the character of the soil or rocks, kind of timber which grows naturally, the existence of natural fertilizers (as lime, or marl, or ores), or any other facts of interest relating to mines, seasons, or any particular or unusual natural phenomena—in fine, record any interesting event or circumstance connected with the history of his region for which he may find space.

In every case where the assistant has reason to believe that a portion of the information sought to be obtained by this schedule can be *more accurately* ascertained from any reliable bills of mortality, the facts may be abstracted from such registry, according to the form of this schedule, and the same rate of compensation will be allowed as if taken by actual visitation. It is, however, only admissible to avail oneself of such information where the record is of the most reliable nature or character.

#### CENSUS OF 1860.

SCHEDULE 3.—PERSONS WHO DIED during the year ending 1st June, 1860, in ....., in the County of ....., State of ....., enumerated by me, ....., Ass't. Marshal.

1. Name of every person who died during the year ending 1st June, 1860, whose usual place of abode at the time of death was in this family.

## Description :

2. Age.
3. Sex.
4. Color—white, black, or mulatto.
5. Free or slave.
6. Married or widowed.
7. Place of birth, naming the state, territory, or country.
8. The month in which the person died.
9. Profession, occupation, or trade.
10. Disease or cause of death.
11. Number of days ill.
- Remarks.

## CENSUS OF 1870.

SCHEDULE 2.—PERSONS WHO DIED during the year ending 1st June, 1870, in ....., in the County of ....., State of ....., enumerated by me, ....., Ass't. Marshal.

1. Number of the family, as given in the second column of schedule 1.
2. Name of every person who died during the year ending June 1, 1870, whose place of abode at the time of death was in this family.
3. Age last birthday. If under one year, give months in fractions, as 3/12.

## Description:

4. Sex—Males (M); females (F).
5. Color—White (W); black (B); mulatto (M); Chinese (C); Indian (I).
6. Married (M), or widowed (W).
7. Place of birth, naming the state or territory of the United States, or the country, if of foreign birth.
- Parentage:
8. Father of foreign birth.
9. Mother of foreign birth.
10. The month in which the person died.
11. Profession, occupation, or trade.
12. Disease or cause of death.
- Remarks.

## CENSUS OF 1880.

SCHEDULE 5.—PERSONS WHO DIED during the year ending May 31, 1880, enumerated by me in ....., in the County of ....., State of ....., Enumerator.

Page No.; Supervisor's district No.; Enumeration district No.

1. Number of the family as given in column numbered 2—schedule 1.
2. Name of the person deceased.
- Personal description:
3. Age at last birthday. If under 1 year, give months in fractions, thus: 3/12. If under 1 month give days in fractions, thus: 9/30.
4. Sex—Male (M); female (F).
5. Color—White (W); black (B); mulatto (Mu); Chinese (Ch); Indian (I).
- What was the civil condition of the person who died?
6. Single.
7. Married.
8. Widowed; divorced.
- Nativity:
9. Place of birth of this person, naming the state or territory of the United States, or the country, if of foreign birth.
10. Where was the father of this person born? (As in column 9.)
11. Where was the mother of this person born? (As in column 9.)
12. Profession, occupation, or trade. (Not to be asked in respect to persons under 10 years of age.)
13. The month in which the person died.
14. Disease or cause of death.
15. How long a resident of the county? If less than 1 year, state months in fractions, thus: 3/12.
16. If the disease was not contracted at place of death, state the place.
17. Name of attending physician.

NOTE A.—The census year begins June 1, 1879, and ends May 31, 1880.

NOTE B.—In making entries in columns 6, 7, and 8, an affirmative mark only will

be used, thus: /, except in the case of divorced persons, column 8, when the letter "D" is to be used.

NOTE C.—For instructions relative to the entries in column 14, see this schedule: [Instructions are printed at end of schedule.]

NOTE D.—In column 17, note distinctly if no physician was in attendance, thus: (None.)

NOTE E.—Upon this schedule should be carefully returned:

First. Every death which has occurred in this enumeration district during the census year, whether the deceased was or was not, at death, a member of any family which resided June 1, 1880, in the district.

Second. Every death which has occurred outside of this enumeration district during the census year, the deceased being at date of death a member of a family which resided June 1, 1880, in the enumeration district.

The enumerator should make these entries upon this schedule with great care, seeking every source of information. When a positive statement is impossible, as when an age can only be estimated, or a birthplace must be conjectured, the entry may be enclosed in parentheses, thus: Age (25), meaning that the best estimate of the age that can be given is 25 years.

Of the deaths reported above, the following occurred in this enumeration district, but the families to which the deceased belonged, resided June 1, 1880, out of the enumeration district, as follows:

Number of the line upon which the case is reported above.

Place where the family of the deceased resided June 1, 1880:

Town; county; state.

Of the deaths reported above, the following occurred out of this enumeration district, though the families to which the deceased belonged, resided June 1, 1880, in this enumeration district, as follows:

Number of the line upon which the case is reported above.

Place where the death occurred:

Town; county; state.

FORM for the statement by attending physicians of the causes of death in the cases reported on the reverse side of this sheet.

Number of the line on schedule 5 upon which the case is reported.

Cause of death:

Primary.

Immediate.

Signature of the attending physician.

Remarks.

#### INSTRUCTIONS.

The important point in this schedule is the question in column 14, headed "Disease or cause of death." Especial pains must be taken in this column to make the answer full and exact, and to this end, attention is called to the following points:

Enter the name of the primary disease in all cases, and where the immediate cause of death has been a complication or consequence of the primary disease, enter that also. For instance, enter all cases of death resulting either immediately or remotely from *measles, scarlet fever, typhoid fever, remittent fever, smallpox, etc.*, under the names of those diseases, but add also *dropsy, hemorrhage from the bowels, pneumonia, etc.*, if these occurred as complications and were the more immediate cause of death. In cases of death from hemorrhage, specify the origin of the hemorrhage, thus: *Hemorrhage from aortic aneurism, hemorrhage from ulcer of intestines in typhoid fever, hemorrhage from lungs, hemorrhage from wound of neck, etc.* So also for abscess, aneurism, cancer, carbuncle, dropsy, tumor, ulcer, specify the organ or part affected, as *iliac abscess, abscess of liver; femoral aneurism; carbuncle on lip; cancer of breast, cancer of uterus, cancer of face; dropsy of chest, dropsy of abdomen; inflammation of brain, inflammation of liver; tumor of neck, tumor of abdomen; ulcer of face, ulcer of groin, etc.* Typhus, typhoid, and typho-malarial fevers should be carefully distinguished. Especial inquiry should be made for cases of "stillbirths," including infants born dead from whatever cause. As few deaths as possible should be reported under such general terms as *disease of the throat, disease of the brain, disease of the liver, disease of the lungs, disease of the bowels, disease of the spine, etc.* These should, as far as possible, be reported under special heads.

Make sure that the distinction between *apoplexy, epilepsy, and paralysis* is understood. Distinguish between acute and chronic bronchitis, acute and chronic dysentery or diarrhea, acute and chronic rheumatism. Report cerebro-spinal meningitis as cerebro-spinal fever. Do not report as the cause of death *old age, or intemperance, or debility, or paralysis of the heart, or sudden death*, in any case where it is possible to

name any definite disease. In reporting suicide name the means, whether cutting of throat, hanging, drowning, shooting, poisoning by opium, arsenic, etc.

A space is left at the bottom of each page of this schedule for remarks. It is desired that the enumerators should there describe any particular malady or unusual or peculiar disease which has prevailed in the subdivision, and the supposed cause thereof. In case of any unusual number of deaths by violence or accident (as by the caving of a mine, or similar calamity), an explanation should be given in the space for remarks.

The enumerator should endeavor to see in person every physician residing in or near his enumeration district, who is named in this schedule as the physician attending at death, and courteously invite him to inspect the entries in regard to the cause of death in his cases, and to verify or restate them as the facts may demand. For this purpose spaces are provided below, numbered to correspond with the lines of the schedule upon the other side.

If the physician finds the entry in the schedule correct and fully in accordance with the foregoing instructions he is requested to make the entry in the proper numbered space below: *Correctly stated.* If he does not deem it correct, it is desired that he restate the cause of death in the numbered space in accordance with his own views, signing each entry.

The enumerator should also inquire of each physician within his enumeration district whether he has a record or register of deaths occurring during the census year, kept at the request of the Superintendent of Census, and if so, will offer to take charge of and forward the same to the census office under his official frank.

## CENSUS OF 1890.

### SCHEDULE No. 5.—MORTALITY.

PERSONS WHO DIED during the Census Year (June 1, 1889, to May 31, 1890), in  
....., County of ....., State of ..... Enumerator.

Supervisor's district No.; Enumeration district No.

1. Number of ward or sanitary district.
2. Name of the person deceased.
3. Color. (Specify whether white, black, or mixed blood; also whether Chinese, Japanese, or Indian.)
4. Sex.
5. Age—years; months; days.
6. Whether single, married, widowed, or divorced.
7. Place of birth.
8. Place of birth of father.
9. Place of birth of mother.
10. Profession, trade, or occupation.
11. Whether *born* in the census year, with month of birth.
12. Month in which the person died.
13. Disease or cause of death. (See instructions.)
14. Length of time a resident of the county. (If less than one year, state months in fractions, thus: 3/12.)
15. Name of place where disease was contracted, if other than the place of death.
16. Name of attending physician. (If no physician was in attendance, write the word "None.")
17. Whether the person who died was an insane person or an idiot. (If so, specify which.)
18. Whether the person who died was a soldier, sailor, or marine during the civil war (U. S. or Conf.), or widow of such person. (If so, specify which.)

Upon this schedule should be carefully returned:

First. Every death which has occurred in this enumeration district during the census year, whether the deceased was or was not at death a member of any family which resided June 1, 1890, in the district.

Second. Every death which has occurred outside of this enumeration district during the census year, the deceased being at date of death a member of a family which resided June 1, 1890, in the enumeration district.

The enumerator should make these entries upon this schedule with great care, seeking every source of information. When a positive statement is impossible, as when an age can only be estimated, or a birthplace must be conjectured, the entry may be inclosed in parentheses, thus: Age (25), meaning that the best estimate of the age that can be given is 25 years.

## 232 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Spaces are herein provided for making a special record in all cases where the deceased was not a resident of the enumeration district (Form A), or where the death occurred out of the enumeration district (Form B); and also to give the exact date of death in all cases of infants dying under 1 year of age (Form C).

A.—Of the deaths reported on this schedule the following occurred in this enumeration district, but the families to which the deceased belonged resided June 1, 1890, out of the enumeration district:

Number of the line upon which the case is reported on this schedule.

Place where the family of the deceased resided June 1, 1890:

Town; county; state.

B.—Of the deaths reported on this schedule the following occurred out of this enumeration district, though the families to which the deceased belonged resided June 1, 1890, in this enumeration district:

Number of the line upon which the case is reported on this schedule.

Place where the death occurred:

Town; county; state.

C.—Date of death of infants dying under one year of age, in all cases where reported on this schedule:

Number of the line upon which the case is reported on this schedule.

Date of death.

FORM for the statement by attending physicians of the causes of death in the cases reported on the second and third pages of this schedule.

Number of the line on the second and third pages of Schedule 5 upon which this case is reported.

Cause of death:

Primary.

Immediate.

Signature of the attending physician.

Remarks.

### INSTRUCTIONS.

The important point in this schedule is the question in column 13, headed "Disease or cause of death." Especial pains must be taken in this column to make the answer full and exact, and to this end attention is called to the following points:

Enter the name of the primary disease in all cases, and where the immediate cause of death has been a complication or consequence of the primary disease enter that also. For instance, enter all cases of death resulting either immediately or remotely from *measles*, *scarlet fever*, *typhoid fever*, *remittent fever*, *smallpox*, etc., under the names of those diseases, but add, also, *dropsy*, *hemorrhage from the bowels*, *pneumonia*, etc., if these occurred as complications, and were the more immediate cause of death.

In cases of death from hemorrhage, specify the origin of the hemorrhage, thus: *Hemorrhage from aortic aneurism*, *hemorrhage from ulcer of intestines in typhoid fever*, *hemorrhage from lungs*, *hemorrhage from wound of neck*, etc.

So, also, for abscess, aneurism, cancer, carbuncle, dropsy, tumor, ulcer, specify the organ or part affected, as *iliac abscess*, *abscess of liver*; *femoral aneurism*; *carbuncle on lip*; *cancer of breast*, *cancer of uterus*, *cancer of face*; *dropsy of chest*, *dropsy of abdomen*; *inflammation of brain*, *inflammation of liver*; *tumor of neck*, *tumor of abdomen*; *ulcer of face*, *ulcer of groin*, etc.

Typhus, typhoid, and typho-malarial fevers should be carefully distinguished.

Especial inquiry should be made for cases of "stillbirths," including infants born dead from whatever cause.

As few deaths as possible should be reported under such general terms as *disease of the throat*, *disease of the brain*, *disease of the liver*, *disease of the lungs*, *disease of the bowels*, *disease of the spine*, etc. These should, as far as possible, be reported under special heads.

Make sure that the distinction between *apoplexy*, *epilepsy*, and *paralysis* is understood.

Distinguish between acute and chronic bronchitis, acute and chronic dysentery or diarrhea, acute and chronic rheumatism.

Report cerebro-spinal meningitis as cerebro-spinal fever.

Do not report as the cause of death *old age*, or *intemperance*, or *debility*, or *paralysis of the heart*, or *sudden death*, in any case where it is possible to name any definite disease.

In reporting suicide name the means, whether cutting of throat, hanging, drowning, shooting, poisoning by opium, arsenic, etc.

A space is left at the bottom of the fourth page of this schedule for remarks. It is desired that the enumerators should there describe any particular malady or unusual

or peculiar disease which has prevailed in the subdivision, and the supposed cause thereof. In case of any unusual number of deaths by violence or accident (as by the caving of a mine or similar calamity), an explanation should be given in the space for remarks.

The enumerator should endeavor to see in person every physician residing in or near his enumeration district who is named in this schedule as the physician attending at death, and courteously invite him to inspect the entries in regard to the cause of death in his cases and to verify or restate them, as the facts may demand. For this purpose spaces are provided on the fourth page, numbered to correspond with the lines upon the second and third pages of this schedule.

If the physician finds the entry in the schedule correct and fully in accordance with the foregoing instructions, he is requested to make the entry in the proper numbered space on the fourth page: "*Correctly stated.*" If he does not deem it correct, it is desired that he restate the cause of death in the numbered space in accordance with his own views, signing each entry.

The enumerator should also inquire of each physician within his enumeration district whether he has a record or register of deaths occurring during the census year, kept at the request of the Superintendent of Census, and, if so, he should offer to take charge of and forward the same to the census office under his official frank.

## AGRICULTURE.

[The general inquiries relating to agriculture at the censuses from 1840 to 1890 were printed at the heads of columns and the entries made on horizontal cross lines. The tabular form of the inquiries on the general schedules are not here reproduced.]

In 1840 the inquiries relating to agriculture were contained in a "Schedule of Mines, Agriculture, Commerce, Manufactures, etc.," which called for a return by the assistant marshal concerning the whole district assigned to him and not in detail by farms, establishments, etc. In 1850 spaces were provided in the schedule of inquiries for 41 entries, in 1860 and 1870 for 40 entries, and in 1880 and 1890 for 10 entries, the inquiries in 1880 being contained in 3 series of columns to the schedule page, and in 1890 in 3 series of columns to each of the 4 pages constituting a single schedule.

At the censuses of 1880 and 1890, in addition to the general inquiries made by the census enumerators, special inquiries were made by special agents or correspondence. These special schedules of inquiry were mainly individual, that is, each schedule was intended to cover but a single return from the establishment or person to whom it was sent. These special inquiries were partly tabular in form, and where this was the case they have been so reproduced. In a few instances, these schedules of inquiry were wholly tabular in form and called for a report concerning more than one person or establishment. The inquiries were printed at the heads of columns and the entries were made on horizontal cross lines, the same as on the general schedules. This was the case with the schedules in 1880 relating to "fuel consumed during the year ending May 3, 1880," collected by special agents, and to those in 1890 relating to "agricultural organizations," "live stock not on farms," and "live stock on ranges."]

## CENSUS OF 1840.

SCHEDULE OF MINES, AGRICULTURE, COMMERCE, MANUFACTURES, ETC.,  
exhibiting a full view of the pursuits, industry, and resources of the country within  
the division allotted to ..... by the marshal of the ..... district (or territory)  
of .....

[The inquiries relating to mines, commerce, fisheries, and manufactures are given under their respective heads, and are not here reproduced.]

### AGRICULTURE.

#### Live stock:

Horses and mules.

Neat cattle.

Sheep.

Swine.

Poultry of all kinds, estimated value.

## Cereal grains:

Number of bushels of wheat.  
 Number of bushels of barley.  
 Number of bushels of oats.  
 Number of bushels of rye.  
 Number of bushels of buckwheat.  
 Number of bushels of indian corn.

## Various crops:

Pounds of wool.  
 Pounds of hops.  
 Pounds of wax.  
 Bushels of potatoes.  
 Tons of hay.  
 Tons of hemp and flax.  
 Pounds of tobacco gathered.  
 Pounds of rice.

## Cotton, sugar, silk, etc.:

Pounds of cotton gathered.  
 Pounds of silk cocoons.  
 Pounds of sugar made.  
 Cords of wood sold.  
 Value of the products of the dairy.  
 Value of the products of the orchard.  
 Gallons of wine made.  
 Value of homemade, or family goods.

## HORTICULTURE.

## Gardens:

Value of produce of market gardens.  
 Value of produce of nurseries and florists.

## Nurseries:

Number of men employed.  
 Capital invested.

## PRODUCTS OF THE FOREST.

Value of lumber produced.  
 Barrels of tar, pitch, turpentine, rosin.  
 Tons of pot and pearl ashes.  
 Skins and furs, value produced.  
 Ginseng, and all other productions of the forest—value.  
 Number of men employed.

## CENSUS OF 1850.

SCHEDULE 4.—PRODUCTIONS OF AGRICULTURE in ....., in the County of ....., State of ....., during the Year ending June 1, 1850, as enumerated by me on the ..... day of ....., 1850. .... Asst. Marshal.

1. Name of owner, agent, or manager of the farm.  
    Acres of land:
  2.     Improved.
  3.     Unimproved.
4. Cash value of farm.
5. Value of farming implements and machinery.  
    Live stock, June 1, 1850:
  6.     Horses.
  7.     Asses and mules.
  8.     Milch cows.
  9.     Working oxen.
  10.    Other cattle.
  11.    Sheep.
  12.    Swine.
  13.    Value of live stock.
- Produce during the year ending June 1, 1850:
  14.    Wheat, bushels of.
  15.    Rye, bushels of.
  - Indian corn, bushels of.

Produce during the year ending June 1, 1850—Continued.

17. Oats, bushels of.
18. Rice, pounds of.
19. Tobacco, pounds of.
20. Ginned cotton, bales of 400 pounds each.
21. Wool, pounds of.
22. Pease and beans, bushels of.
23. Irish potatoes, bushels of.
24. Sweet potatoes, bushels of.
25. Barley, bushels of.
26. Buckwheat, bushels of.
27. Value of orchard products, in dollars.
28. Wine, gallons of.
29. Value of produce of market gardens.
30. Butter, pounds of.
31. Cheese, pounds of.
32. Hay, tons of.
33. Clover seed, bushels of.
34. Other grass seeds, bushels of.
35. Hops, pounds of.
- Hemp:
  36. Dew rotted, tons of.
  37. Water rotted, tons of.
38. Flax, pounds of.
39. Flaxseed, bushels of.
40. Silk cocoons, pounds of.
41. Maple sugar, pounds of.
42. Cane sugar, hogsheads of 1,000 pounds.
43. Molasses, gallons of.
44. Beeswax and honey, pounds of.
45. Value of homemade manufactures.
46. Value of animals slaughtered.

#### EXPLANATION OF SCHEDULE 4.—AGRICULTURE.

This schedule is to be filled up in the following manner:

Insert in the heading the name of the district, town, or city, and the county or parish, and the state in which the farms enumerated are located, and insert the date when the enumeration was made. This is to be attested on each page of each set by signing the schedule.

In many agricultural returns the amount stated must sometimes be *estimated*, as the number of bushels of wheat or of oats; but under other headings, as to the number of live stock, the precise number or amount can usually be stated. The assistant must use his discretion in assisting a farmer to estimate fairly and accurately the amount of his crops when he keeps no exact account; and in all instances it is desired to make the nearest approximate returns which the case will admit of.

The returns of all farms or plantations, the produce of which amounts to \$100 in value, are to be included in this schedule; but it is not intended to include the returns of small lots, owned or worked by persons following mechanical or other pursuits, where the productions are not \$100 in value.

1. Under heading 1, entitled "*Name of individual managing his farm or plantation*," insert the name of the person residing upon or having charge of the farm, whether as owner, agent, or tenant. When owned or managed by more than one person, the name of one only should be entered.

2 and 3. Under general heading, "*Acres of land*," and under particular heading, "*Improved land*," insert the number of acres of improved land; by which is meant, cleared and used for grazing, grass, or tillage, or which is now fallow, connected with or belonging to the farm which the assistant marshal is reporting. It is ~~not~~ necessary that it should be contiguous; but it must be owned or managed by the person whose name is inserted in the column.

Under heading "*Unimproved*," insert the number of acres of unimproved land ~~un-~~ connected with the farm. It is not necessary that it should be *contiguous to the* improved land; but may be a wood lot, or other land at some distance, but ~~connected~~ in connection with the farm, the timber or range of which is used for farm purposes.

Under heading No. 4, "*Cash value of farm*," include the actual cash value of the whole number of acres returned by you as improved and unimproved. *In this, as in all cases where an amount of money is stated, make your figures represent dollars.* thus, if the cash value of the farm be \$5,000, insert simply the figures *5,000*. *This*

rule must be particularly and carefully observed in all cases where amounts of money are to be entered in the columns.

5. Under heading No. 5 place the aggregate value of all the farming or planting implements, and machinery, including wagons, thrashing machines, cotton gins, sugar mills; in fact, all implements and machinery used to cultivate and produce crops and fit the same for market or consumption.

Under general heading, "*Stock, 1st June, 1850*," of the whole number of animals which belong to the farm on the 1st day of June, the number of each description thereof is to be inserted under the proper headings, taking care that under heading "*Other cattle*," you insert the number of all cattle not before enumerated, which are one year old and older.

11. The number of all sheep which were on said date of one or more years old is to be inserted in column 11.

12. Under 12 insert the number of swine on the farm on the 1st day of June.

13. Under heading 13 insert, in dollars, the cash value of all live stock on hand on the 1st of June.

14 to 44, inclusive, entitled in general heading, "*Produce during the year ending June 1, 1850*." Insert in the appropriate columns the whole number of tons, bales, bushels, pounds, or value, as the heading may call for, of the respective crops raised on the farm during the year ending the 1st of June. The grain which is gathered in that year is meant, though it may have been sown in 1848.

45. "*Value of homemade manufactures*." Under this heading is to be included the value of all articles manufactured within the year preceding the 1st day of June, in or by the family, whether for home use or for sale. If the raw material has been purchased for such manufacture, the value of such raw material should not be included; the object being to ascertain the value of manufactures by the family from their own productions, or the value of the labor expended on the productions of others. This discrimination is important.

46. Under heading 46 insert, in dollars, the value of all animals slaughtered during the year.

#### CENSUS OF 1860.

SCHEDULE 4.—PRODUCTIONS OF AGRICULTURE in ....., in the County of ....., in the State of ....., enumerated by me, on the ..... day of ....., 1860.

Post-Office ....., Ass't Marshal.

1. Name of owner, agent, or manager of the farm.

Acres of land:

2. Improved.

3. Unimproved.

4. Cash value of farm.

5. Value of farming implements and machinery.

Live stock, June 1, 1860:

6. Horses.

7. Asses and mules.

8. Milch cows.

9. Working oxen.

10. Other cattle.

11. Sheep.

12. Swine.

13. Value of live stock.

Produce during the year ending June 1, 1860:

14. Wheat, bushels of.

15. Rye, bushels of.

16. Indian corn, bushels of.

17. Oats, bushels of.

18. Rice, pounds of.

19. Tobacco, pounds of.

20. Ginned cotton, bales of 400 pounds each.

21. Wool, pounds of.

22. Pease and beans, bushels of.

23. Irish potatoes, bushels of.

24. Sweet potatoes, bushels of.

25. Barley, bushels of.

26. Buckwheat, bushels of.

27. Value of orchard products, in dollars.

Produce during the year ending June 1, 1860—Continued.

28. Wine, gallons of.
29. Value of produce of market gardens.
30. Butter, pounds of.
31. Cheese, pounds of.
32. Hay, tons of.
33. Clover seed, bushels of.
34. Grass seeds, bushels of.
35. Hops, pounds of.
- Hemp:
  36. Dew rotted, tons of.
  37. Water rotted, tons of.
  38. Other prepared hemp.
39. Flax, pounds of.
40. Flaxseed, bushels of.
41. Silk cocoons, pounds of.
42. Maple sugar, pounds of.
43. Cane sugar, hogsheads of 1,000 pounds.
44. Molasses, gallons of, and from what made.
45. Beeswax, pounds of.
46. Honey, pounds of.
47. Value of home made manufactures.
48. Value of animals slaughtered.

## CENSUS OF 1870.

SCHEDULE 3.—PRODUCTIONS OF AGRICULTURE in ....., in the County of ....., in the State of ....., enumerated by me on the ..... day of ....., 1870.

Post-Office: ....., Ass't Marshal.

1. Name of agent, owner, or manager.
- Acres of land:
  2. Improved.
  - Unimproved:
    3. Woodland.
    4. Other unimproved.
- Present cash value:
  5. Of farm.
  6. Of farming implements and machinery.
  7. Total amount of wages paid during the year, including value of board.
- Live stock, June 1, 1870:
  8. Horses.
  9. Mules and asses.
  10. Milch cows.
  11. Working oxen.
  12. Other cattle.
  13. Sheep.
  14. Swine.
  15. Value of all live stock.
- Produce during the year ending June 1, 1870:
 

Wheat:

  16. Spring—bushels.
  17. Winter—bushels.
  18. Rye—bushels.
  19. Indian corn—bushels.
  20. Oats—bushels.
  21. Barley—bushels.
  22. Buckwheat—bushels.
  23. Rice—pounds.
  24. Tobacco—pounds.
  25. Cotton—bales (450 pounds).
  26. Wool—pounds.
  27. Pease and beans—bushels.

Potatoes:

  28. Irish—bushels.
  29. Sweet—bushels.
  30. Orchard products—value.

## 238 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Produce during the year ending June 1, 1870—Continued.

31. Wine—gallons.
32. Produce of market gardens—value.
- Dairy products:
33. Butter—pounds.
34. Cheese—pounds (*a*).
35. Milk sold—gallons.
36. Hay—tons.
- Seed:
37. Clover—bushels.
38. Grass—bushels.
39. Hops—pounds.
40. Hemp—tons.
41. Flax—pounds.
42. Flaxseed—bushels.
43. Silk cocoons—pounds.
- Sugar:
44. Maple—pounds.
45. Cane—hogsheads (1,000 pounds).
46. Molasses—gallons.
- Bees:
47. Wax—pounds.
48. Honey—pounds.
49. Forest products—value.
50. Value of home manufactures.
51. Value of animals slaughtered or sold for slaughter.
- Total value:
52. Estimated value of all farm production, including betterments and additions to stock.

### CENSUS OF 1880.

#### GENERAL SCHEDULE.

SCHEDULE 2.—PRODUCTIONS OF AGRICULTURE in ....., in the County of ....., State of ....., enumerated by me on the ..... day of June, 1880. ...., Enumerator.

[The 100 numbered items of inquiry herein reproduced were asked generally throughout the country, with the exception of the southern states, where a separate schedule was used, embodying the changes indicated by foot notes *d* and *e*, as follows: Broom corn (two inquiries) and hops (two inquiries) omitted; weeks of hired labor (one additional inquiry—subdivision of white and colored persons), rice (two inquiries), cotton (two inquiries), and cane (three inquiries) added, or a net addition of four inquiries.]

Supervisor's district No.; Enumeration district No.

Of the person who conducts the farm:

1. The name.
- Tenure:
2. Owner.
3. Rents for fixed money rental.
4. Rents for share of products.
- Acres of land:
- Improved:
5. Tilled, including fallow and grass in rotation, (whether pasture or meadow).
6. Permanent meadows, permanent pastures, orchards, vineyards.
- Unimproved:
7. Woodland and forest.
8. Other unimproved, including "old fields" not growing wood.
- Farm values:
9. Of farm, including land, fences, and buildings.
10. Of farming implements and machinery.
11. Of live stock.
12. Fences—cost of building and repairing in 1879.
13. Cost of fertilizers purchased in 1879.

*a* This will include only such cheese as is made upon the farm. Milk sent to cheese factories will be regarded as milk sold off the farm.

## Labor:

14. Amount paid for wages for farm labor during 1879, including value of board.
15. Weeks hired labor in 1879 upon farm (and dairy), excluding housework—white; colored. (*a*)
16. Estimated value of all farm productions (sold, consumed, or on hand) for 1879.  
Grass lands:  
Acreage—1879:
  17. Mown.
  18. Not mown.
 Products harvested in 1879:
  19. Hay—tons.
  20. Clover seed—bushels.
  21. Grass seed—bushels.
22. Horses of all ages on hand June 1, 1880.
23. Mules and asses, all ages, on hand June 1, 1880.  
Neat cattle and their products:  
On hand June 1, 1880:
  24. Working oxen.
  25. Milch cows.
  26. Other.
 Movement—1879:
  27. Calves dropped.
  - Cattle of all ages:
    28. Purchased.
    29. Sold living.
    30. Slaughtered.
    31. Died, strayed, and stolen, and not recovered.
  32. Milk sold, or sent to butter and cheese factories in 1879—gallons.
  33. Butter made on the farm in 1879—pounds.
  34. Cheese made on the farm in 1879—pounds.
- Sheep:
  35. On hand June 1, 1880.
  - Movement—1879:
    36. Lambs dropped.
    - Sheep and lambs:
      37. Purchased.
      38. Sold living.
      39. Slaughtered.
      40. Killed by dogs.
      41. Died of disease.
      42. Died of stress of weather.
  43. Clip, spring 1880, shorn and to be shorn:
    43. Fleeces.
    44. Weight—pounds.
- Swine:
  45. On hand June 1, 1880.
- Poultry on hand June 1, 1880, exclusive of spring hatching:
  46. Barnyard.
  47. Other.
48. Eggs produced in 1879—dozen.  
Cereals:
  - Barley—1879:
    49. Area—acres.
    50. Crop—bushels.
  - Buckwheat—1879:
    51. Area—acres.
    52. Crop—bushels.
  - Indian corn—1879:
    53. Area—acres.
    54. Crop—bushels.
  - Oats—1879:
    55. Area—acres.
    56. Crop—bushels.

*a* Subdivision of weeks of hired labor for white and colored given in the schedule for the southern states only.

# 240 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## Cereals—Continued.

### Rye—1879:

- 57. Area—acres.
- 58. Crop—bushels.

### Wheat—1879:

- 59. Area—acres.
- 60. Crop—bushels.

### Pulse:

- 61. Canada pease (dry) in 1879—bushels.
- 62. Beans (dry) in 1879—bushels.

### Fiber: (a)

#### Flax—1879:

- 63. Area in crop—acres.
- 64. Seed—bushels.
- 65. Straw—tons.
- 66. Fiber—pounds.

#### Hemp:

- 67. Acres.
- 68. Tons.

### Sugar: (b)

#### Sorghum—1879:

- 69. Area in crop—acres.
- 70. Sugar—pounds.
- 71. Molasses—gallons.

#### Maple—1879:

- 72. Sugar—pounds.
- 73. Molasses—gallons.

### Broom corn—1879: (c)

- 74. Acres.
- 75. Pounds.

### Hops—1879: (c)

- 76. Area—acres.
- 77. Crop—pounds.

### Potatoes (Irish)—1879:

- 78. Area—acres.
- 79. Crop—bushels.

### Potatoes (sweet)—1879:

- 80. Area—acres.
- 81. Crop—bushels.

### Tobacco—1879:

- 82. Area—acres.
- 83. Crop—pounds.

### Orchards—1879:

#### Apple:

- 84. Acres.
- 85. Bearing trees.
- 86. Bushels—1879.

#### Peach:

- 87. Acres.
- 88. Bearing trees.
- 89. Bushels—1879.

- 90. Total value of orchard products of all kinds sold or consumed.

### Nurseries:

- 91. Acres.
- 92. Value of produce sold in 1879.

### Vineyards:

- 93. Acres.
- 94. Grapes sold in 1879—pounds.
- 95. Wine made in 1879—gallons.

### Market gardens:

- 96. Value of produce sold in 1879.

### Bees—1879:

- 97. Honey—pounds.
- 98. Wax—pounds.

*a* For cotton, see end of schedule inquiries.

*b* For cane, see end of schedule inquiries.

*c* Omitted on schedule for southern states.

## Forest products:

99. Amount of wood cut in 1879—cords.  
 100. Value of all forest products sold or consumed in 1879.  
 Rice—1879: (a)  
     Acres.  
     Pounds.  
 Cotton—1879: (a)  
     Acres.  
     Bales.  
 Cane—1879: (a)  
     Area in crop—acres.  
     Sugar—hogsheads.  
     Molasses—gallons.

NOTE A.—The light dotted perpendicular lines, which divide the spaces intended for numbers on this schedule, are intended to separate the units, tens, etc., from each other, and the enumerator should be careful that the figures are written within the small spaces so formed, the units in the right-hand small spaces.

NOTE B.—Make an affirmative entry by a slanting line (thus /) in one of the three columns 2, 3, and 4, according as the fact is in the case of each farm—in column 2, if the occupier is the owner of the farm; in column 3, if he is the tenant at a fixed money rental; in column 4, if he conducts it for a share of the product.

NOTE C.—Enumerators will observe that there are 100 questions relating to each farm, which are arranged in four successive divisions of each schedule page.

## SPECIAL SCHEDULES.

## PRODUCTION OF CEREALS.

[Persons receiving this schedule are requested to enter their answers in the blank spaces after the questions. Any further information (not called forth by the questions) relating to the production of cereals, and which may be deemed important in the locality described, may be given in such shape as the writer chooses.]

## A.—Location.

1. State; county; town.
2. What proportion of the land devoted to grain-raising is—  
     Hilly?  
     Rolling?  
     Level, alluvial, or bottom land?
3. What is the prevailing kind of soil (as clay, loam, alluvial, black prairie, etc.)?
4. What is the character of the subsoil?
5. Was the land originally covered with forest or prairie?
6. What is the average value per acre of the grain farms of your region?
7. What proportion of the grain farms are managed by their owners, and what by tenants?
8. What proportion of the hired labor of the grain farms is hired by the month or year?  
     What proportion is hired by the day?
9. What proportion of the hired laborers on the grain farms board with their employers?
10. What is the leading agricultural industry? Grain growing; cotton planting; sugar planting; grazing.
11. What are the four most important grain crops grown in your region? (State them in their order, the most important first.)
12. Is there any one system of rotation in crops generally practiced? If so, what is the rotation?
13. How long since the region was settled and brought into general cultivation?

## B.—Wheat.

14. How does the *yield of wheat per acre* in 1879 compare with the yield in 1878?  
     With that of 1877?
15. How does the *quality* of the crop of 1879 compare with that of 1878?  
     With that of 1877?

---

*a* Appear only on the schedule for the southern states.

## 242 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

16. What is usually considered a *fair yield* to be anticipated in your region of winter wheat (bushels per acre)?  
Of spring wheat?
17. What was the *largest* yield per acre you know of in your region in 1879?
18. What varieties of winter wheat are most commonly grown?
19. What of spring wheat?
20. What was the average *weight* per measured bushel of the winter wheat of the crop of 1879?
21. Of the spring wheat?
22. Is more wheat grown in your region than is needed for local consumption?

### PREPARATION OF THE SOIL.

23. What proportion of the soil is plowed more than once in preparing for wheat?
24. What is the usual depth (in inches) of plowing for wheat?
25. What is an average day's work for man and team in plowing?
26. What is the price per acre for contract plowing?  
(a) Breaking prairie.  
(b) Breaking meadow or pasture sod.  
(c) Breaking stubble or fallow land.
27. What proportion of the acreage of wheat grown in 1879 has any manure or fertilizer whatever applied to the crop?
28. What proportion of the acreage had any fertilizer applied, other than that produced on the farm?

### SOWING.

29. What date is preferred for sowing winter wheat in your region?
30. How early and how late may it be sown, with reasonable expectation of a profitable crop?
31. What date is preferred for sowing spring wheat?
32. How early and how late may it be sown?
33. What proportion of all the wheat grown in your region is sown by hand, and what by some kind of machine or drill?
34. What proportion is sown broadcast, and what proportion is in drills?
35. If either way is preferred, state why.
36. When sown by hand, what is an average day's work?
37. When drilled in or sown with machine, what is an average day's work for man and team?
38. How much seed is usually used per acre when drilled in?  
How much when sown broadcast?
39. Is there usually any special preparation of the seed before sowing? If yes, what preparation?
40. Is it considered important to often change the seed, and to get it from another locality?
41. Have you known instances of spring cultivation or horse-hoeing of winter wheat? If yes, with what results in enlarged production?
42. Is it common to use the roller in the spring on lands where the wheat is liable to winter-kill?

### HARVESTING WHEAT AND PREPARATION FOR MARKET.

43. At what date did the wheat harvest of 1879 begin?  
When was it at its height?  
When did it end?
44. What proportion was cut by hand, and what by machine?
45. When cut by hand, what is an average day's work for cutting?  
For binding and putting into shock?
46. If the work of cutting and putting up is done by gang, how many men in a gang, and what is its day's work?
47. What wages were paid harvest hands in 1879?
48. If cut by machine, what is an average day's work for one man, team, and machine?
49. How many additional hands are required to rake, bind, and put into shock when this is done?
50. What proportion is not bound into sheaves at all?
51. If the work is done by gang, how many hands in a gang, and what is its average day's work?

52. What proportion of the crop is stacked or put into barns before thrashing, and what proportion is thrashed in the field, or directly from it?
53. What proportion is thrashed by horsepower and what by steam?  
Are the machines mostly owned on the farms, or do they travel from farm to farm for custom?
54. What is the usual price per bushel for thrashing wheat?  
At this rate does the grower furnish—  
(a) Board of thrasher's men?  
(b) What number of additional hands, if any?
55. What do you consider a good day's work for a steam thrasher under good conditions?  
Please state the conditions, the number of men employed, and the amount thrashed.
56. What may be considered the average cost of hauling the wheat from the farm to the market or place of shipment (say, cost per 100 bushels for a given number of miles, as the roads usually are when the grain is shipped)?

DISEASES; INSECTS; MISHAPS.

57. To what extent was the crop of 1879 damaged by smut?
58. Was this more, or less, than usual?
59. Was this more prevalent on upland or on lowland?
60. To what extent was the wheat crop of 1879 damaged by rust or mildew?
61. Was this more, or less, than usual?
62. On what land, soils, or exposures was the disease most prevalent?
63. Did some varieties of wheat suffer more than others; and if so, which suffered most and which least?
64. To what extent was the wheat crop of 1879 damaged by insects?
65. What insects did the damage, if any?
66. What remedies have been used against insects, and with what success?
67. Does injury to the wheat crop by insects in your region seriously affect or modify the character of the farming or act as a preventive against cultivating the crop?
68. Was the wheat crop of 1879 damaged by winter-killing; and if so, to what extent?
69. Was this more, or less, than usual?
70. Did any other mishaps damage or diminish the wheat crop in your region?
71. What weeds are the most troublesome to the wheat crop of your region? And do they damage the crop by choking its growth, or by the seeds mingling with the grain?
72. What means are taken to remedy the trouble?

C.—*Maize, or Indian corn.*

73. How does the *yield of corn per acre* in 1879 compare with that of 1878? With that of 1877?
74. How does it compare in *quality* with the crop of 1878? With that of 1877?
75. What is considered a fair and what a good yield in your locality?
76. What was the largest yield per acre in 1879 in your locality?
77. What varieties of corn are most cultivated?

PREPARATION OF THE SOIL FOR CORN.

78. How deep is the soil usually plowed for corn?
79. What preparation of the soil, other than plowing, is usually practiced?
80. What proportion of the acreage of the corn crop of 1879 had any manure applied to the crop?
81. What fertilizers, if any, are used, other than farmyard manure?

PLANTING.

82. What proportion is planted by hand and what proportion by drill, machine, or planter?
83. How much seed per acre is used?
84. When planted by hand, what is an average day's work per man?
85. When by machine, what per day by man, horse, and machine?
86. What proportion is planted in hills in rows both ways, so as to be tilled between the rows both ways?  
And what proportion in drills or rows but one way?

## 244 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

87. When in rows both ways, what is the usual distance apart?
88. What the distance when in rows but one way?
89. What proportion of the seed-corn is selected in the year by hand, and what has no special selection?
90. Is any preparation of the seed (such as soaking or using solutions) usually practiced?
91. When seed is brought from another locality is it less liable to succeed if brought from one direction (as from the East, for instance) than if brought from another direction?

### TILLAGE DURING GROWTH.

92. If both plow and cultivator (or similar implement) are used, how often each?
93. If the plow only is used, how often usually, and how deep is it run?
94. If the cultivator alone is used, how often?
95. What proportion of the crop is not hoed at all?  
What proportion is hoed but once?  
What proportion more than once?
96. What are the most troublesome weeds?
97. What is the common height of the stalks when mature?
98. What proportion of the crop is "topped" (the stalk cut above the ears) before it is ripe?

### HARVESTING; SHELLING; MARKETING.

99. What proportion of the corn is cut up before husking?  
What proportion husked on the hill?  
What proportion is not husked at all, but is allowed to be harvested by live-stock?
100. When cut up, what is an average day's work for cutting corn?
101. When husked by hand, what is an average day's work in bushels of ears?
102. To what extent are husking machines used, if at all?
103. What proportion of the corn crop of your vicinity is consumed in the locality, and what proportion is shipped?
104. If marketed, what proportion is sold in the ear, and what proportion is shelled?
105. When sold in the ear, is it usually sold by weight or by measure?
106. To what extent is corn sown (or drilled) for fodder?
107. What is considered a fair yield of dry corn-fodder in tons per acre?

### DISEASES; INSECTS, AND MISHAPS.

108. To what extent was the corn crop of 1879 damaged (if at all) by smut?
109. Was it damaged by insects? if yes, what insects?  
And to what extent?
110. What other mishaps, if any, damaged the corn crop of 1879?

### D.—Rye.

111. What varieties of rye are cultivated?
112. Is the crop mostly cultivated for the grain or for the straw?
113. Is rye grown for forage?  
(a) For winter pasture?  
(b) For soiling?
114. What was the yield of straw per acre in 1879?
115. How was the straw marketed, and at what price?  
Loose, in bulk, per ton?  
In bundles, per bundle?  
In bales, per bale?

### E.—Oats.

116. How does the *yield of oats per acre* of 1879 compare with that of 1878?  
With that of 1877?
117. How does the *quality* and weight of the crop of 1879 compare with that of 1878?  
With that of 1877?
118. What is the range of weight per measured bushel of the crop of 1879?  
Lightest (in pounds), average; heaviest.
119. Was the heaviest from seed produced in your locality, or was it from seed which was grown elsewhere?
120. To what extent are seed oats brought from other localities?

121. If there is any considerable importation of seed oats into your locality, where are they brought from?
122. What (if any) is the excess in weight or yield between oats grown from seed brought from elsewhere, over oats grown from seed which has been cultivated for several years in your locality?
123. Are more oats grown in your region than are consumed there?
124. What proportion of the oats is fed out unthrashed?
125. What are the customary rules about selling as regards weight? Does the farmer sell by weight or by measure, and if by weight, at how many pounds per bushel?
126. Did the crop of 1879 suffer damage from smut, disease, insects, or other mishaps; and if so, to what extent?
127. What mishaps, if any, is the crop most subject to in your locality?
128. What varieties, if any, are unaffected or least injured by "rust"?

## F.—Barley.

129. How did the *average yield per acre* of the barley crop of 1879 compare with that of 1878?  
With that of 1877?
130. How did the *quality* (in weight and color) compare with that of 1878?  
With that of 1877?
131. What varieties are most cultivated?
132. On what kind of soils was the crop most successful?
133. What was the average weight of 2-rowed barley of the crop of 1879?  
Of 6-rowed barley?
134. What proportion of the crop is shipped, and what proportion is fed to animals?
135. When shipped, where is it shipped to?
136. Is the crop grown to any considerable extent for fodder?
137. If yes, is it usually cut green, or is it allowed to ripen?

## G.—Buckwheat.

138. How did the *yield of buckwheat per acre* in 1879 compare with the crop of 1878?  
How with that of 1877?
139. What varieties of buckwheat are most grown?
140. What is considered a fair or good crop?
141. At what date is the crop usually sown in your locality?
142. What mishaps, if any, damaged the crop of 1879, and to what extent?
143. What mishaps is the crop most subject to in your locality?

## DETAILS OF COTTON CULTURE.

[Persons receiving this schedule are requested, in entering their answers, to strike out plainly, by crossing with pen or pencil, whatever words they do not intend shall stand in the answer; or, if no suitable terms be found, to insert such as they may desire in the blank spaces left. This applies more especially to the description of location, soil, etc., where numerous suggestive terms are set down for the convenience of the writer; so that by striking out those not applicable, words sufficiently descriptive of any ordinary cases may be retained. When several different soils are to be mentioned, the chiefly important one should be described in the body of the report, and each of the others separately, on the duplicate sheets subjoined, at the end of the schedule.]

## Location.

1. State; county; T.; R.; S.
- (a) Lowland:
 

First	second	bottom, creek of	waters of	river
lake	bay	sound,	alluvial plain	delta plain
front land	back land	cypress swamp	coast flat	sand
mock	sea island			shell
				hum-
- (b) Upland:
 

Mountain	hilly	rolling	level	table-land,	prairie	waters of
					creek,	river
- Remarks:
4. What circumstances of "local climate," if any, influence cotton growing in your region?

*Soil.*

[Under this head, please mention first, by their common names, the several materially different kinds of soil in your region, used in, or adapted to, the culture of cotton; describe in the body of the blank the most important one of these (No. 1), referring to the separate sheets subjoined for the description of the less important ones.]

5. Kinds of soils cultivated in cotton—No. 1; No. 2; No. 3.
6. Common designation of chief one.
7. What proportion of the lands in your region is of this kind?
8. How far, in each direction, do you know the same soil to occur?
9. What is its natural timber, or other growth?
- Description:
  10. Light—Fine silt | fine sandy | coarse sandy | gravelly | loam.
  11. Heavy—Clay loam | clay | prairie | adobe | putty-like .....
  12. Color—Whitish | gray | buff | yellow | greenish yellow | brown | mahogany | orange red | blackish | black.
  13. Thickness (average) of the surface soil, before its color changes into that of the subsoil—feet, inches.
  14. Character of subsoil—Heavier | lighter | than surface soil (describe, using suitable terms as in description of soil): ..... hardpan, leachy ....., impervious .....
  15. Contains flinty ..... | hard | soft | "black gravel" | white gravel | rounded | angular | ..... pebbles.
  16. Underlaid by—Sand | gravel | ..... rock ..... at ..... feet.
  17. Tilling qualities of land—Easy | ..... difficult ..... in wet ..... in dry seasons.
  18. Early | late | warm | cold | ..... | well-drained | ill-drained.
  19. Chief crops produced in your region.
  20. To which is the soil apparently best adapted?
  21. What proportion of cotton is planted?
  22. What is the height usually attained by cotton on such land, and at which height is it most productive?
  23. Under what circumstances does the cotton plant incline to run to weed?
  24. What remedy, if any, can be used to restrain it, and to favor bolling?
  25. What is the seed-cotton product per acre when the land is fresh?
  26. How much seed cotton is needed for a 400-pound bale?
  27. How does the staple from fresh land rate in market when clean?
  28. What is the seed-cotton product per acre after .... years' cultivation (unmatured).
  29. How much seed cotton is then needed for a 400-pound bale?
  30. How does the staple from such land compare with that from fresh land?
  31. What weeds are most troublesome on this soil?
  32. What amount or proportion of such land originally cultivated now lies "turned out"?
  33. How does such land produce when again taken into cultivation?
  34. Does the soil wash or gully readily on slopes?
  35. Is the damage so done of serious extent?
  36. Are the valleys injured by the washings of the uplands?
  37. To what extent?
  38. Have any efforts been made to check the damage? By horizontalizing | hill-side ditching | underdraining.
  39. With what success?
  - Tillage, improvement, etc.:
    40. Usual depth of tillage (measured on land-side of furrow):—inches.
    41. What draft employed in breaking up?
    42. Is subsoiling practiced; if so, with what implements; with what results?
    43. Is fall-plowing practiced? with what results?
    44. Is fallowing practiced? is the land tilled while lying fallow or only "turned out"?
    45. With what results in either case?
    46. Is rotation of crops practiced? with corn; sweet potatoes; oats; wheat.
    47. If so, of how many years' course, and in what order of crops?
    48. With what results?
    49. What fertilizers or other direct means of improving the soil are used by you, or in your region?
    50. With what results?

## Tillage, improvement, etc.—Continued.

51. Is green-manuring practiced? With cowpease.
52. With what results?
53. How is cotton seed disposed of?
54. If sold, on what terms, or at what price?
55. Where is the nearest cotton-seed oil factory?
56. Is cotton-seed cake used with you for feed? for .....
57. Is it used for manure? alone, or mixed with ..... ; for growing .....
- Planting and cultivation of cotton:
58. What preparation is usually given to cotton land before bedding up? fall plowing; spring plowing.
59. Do you plant in ridges? how far apart?
60. What is your usual planting time?
61. What variety do you prefer?
62. How much seed is used per acre?
63. What implements do you use in planting?
64. Are "cotton-seed planters" used in your region? What opinion is held of their efficacy or convenience?
65. How long, usually, before your seed comes up?
66. At what stage of growth do you thin out your stand, and how far apart?
67. Is your cotton liable to suffer from "sore shin"?
68. What after-cultivation do you give, and with what implements?
69. What is the height usually attained by your cotton before blooming?
70. When do you usually see the first blooms?
71. When do the bolls first open?
72. When do you begin your first picking?
73. How many pickings do you usually make? and when?
74. Do you ordinarily pick all your cotton?
75. At what date does picking usually close?
76. At what time do you expect the first "black frost"?
77. Do you pen your seed cotton in the field, or gin as the picking progresses?
- Ginning, baling, and shipping:
78. What gin do you use? how many saws?
79. What motive power? horsepower steam-engine | mules | horses? If the latter, which mechanical "power" arrangement do you prefer?
80. How much clean lint do you make in a day's run of — hours?
81. How much seed cotton, on an average, is required for a 400-pound bale of lint?
82. What press do you use for baling?
83. What press is generally used in your region?
84. What is its capacity when run by men and horses; mules?
85. Do you use rope or iron ties for baling?
86. If the latter, what fastening do you prefer?
87. What kind of bagging is used in your region?
88. What weight do you aim to give your bales; have transportation companies imposed any conditions in this respect?
89. At what time do you chiefly ship; how and to what station or city, and port?
90. What is the usual rate of freight to such port, per bale?
- Diseases, insect enemies, etc.:
91. By what accidents of weather, diseases, or insect pests, is your cotton crop most liable to be injured? caterpillar | ..... boll worm | ..... shedding | ..... rot of bolls | ..... rust | ..... blight.
92. At what dates do these several pests or diseases usually make their appearance?
93. To what cause is the trouble attributed by your farmers?
94. What efforts have been made to obviate it?
95. With what success?
96. Is rust or blight prevalent chiefly on heavy or ill-drained soils?
97. Do they prevail chiefly in wet or dry, cool or hot seasons?
98. On which soil described by you are they most common?
99. Is Paris green used as a remedy against the caterpillar? If so, how and with what effect?
- Labor, and system of farming:
100. What is the average size of farms or plantations in your region?
101. Is the prevalent practice "mixed farming" or "planting"?
102. Are supplies raised at home or imported, and if the latter, where from?

## Labor, and system of farming—Continued.

103. Is the tendency toward the raising of home supplies increasing or decreasing?
104. Who are your laborers chiefly? whites, of what nationality? negroes; Chinese.
105. How are their wages paid? by the year | month | day; at what rates?
106. When payable?
107. Are cotton farms worked on shares? on what terms.
108. Are any supplies furnished by the owners? implements; plows; baskets; teams; mules; horses; gin; press; baling material?
109. Does your system give satisfaction?
110. How does it affect the quality of the staple?
111. Does the soil deteriorate or improve under it?
112. Which system (wages or share) is the better for the laborer? why?
113. What is the condition of the laborers?
114. What proportion of negro laborers own land, or the houses in which they live?
115. What is the market value of the land described in your region?
116. What rent is paid for such land?
117. How many acres, or 400-pound bales, per "hand" is your customary estimate?
118. To what extent does the system of credits or advances upon the growing cotton crop prevail in your region?
119. At what stage of its production is the cotton crop usually covered by insurance?
120. Is such practice general?
121. What are the merchants' commissions, and charges for storing, handling, shipping, insurance, etc., to which your crop is subject?
122. What is the total amount of these charges against the farmer per pound, or 400-pound bale?
123. What is your estimate of the cost of production in your region, exclusive of such charges, and with fair soil and management?

*Soil No. 2.*

[Inquiries numbered 6 to 39, inclusive (with the exception of 19, which was not asked), relating to Soil No. 1 are common to Soil No. 2 and are not here reproduced.]

*Soil No. 3.*

[Inquiries numbered 6 to 39, inclusive (with the exception of 19, which was not asked), relating to Soil No. 1 are common to Soil No. 3 and are not here reproduced.]

## COTTON CULTURE.

Cost of each item of labor and material expended in the cultivation of an acre of cotton:

Items.	Your own practice.		Usual practice in your section.		Remarks.
	Dolls.	Cts.	Dolls.	Cts.	
Rent.....					
Fencing, repairs and interest on.....					
Knocking stalks.....					
Pulling and burning stalks.....					
Other cleaning up.....					
Listing.....					
Bedding with hoes.....					
Breaking up.....					
Harrowing.....					
Barring old beds.....					
Splitting middles.....					
Reversing.....					
Laying off.....					
Manuring, commercial.....					
Manuring, home-made.....					
Applying manures.....					
Bedding up.....					
Splitting middles.....					
Knocking off beds.....					
Planting—opening.....					
dropping.....					
covering.....					
Replanting.....					
Seed.....					
Thinning.....					
Number of plowings.....					
Number of hoeings.....					
Picking, per cwt.....					
Hauling to gin.....					
Ginning, per cwt.....					
Management.....					

Mention any other items in your practice not noted here. Wear and tear of implements to be included, as well as cost of horsepower and labor in your estimates.

## COTTON-SEED OIL INDUSTRY.

In order that the object of these questions may be fully understood, it is desirable to call attention to the high importance of the development of the cotton-seed oil industry with reference to its influence upon the production of cotton itself.

Since cotton seed constitutes, on an average, somewhat more than two-thirds by weight of the crop taken from the cotton field, it is obvious that the progress of soil exhaustion, or the maintenance of fertility must depend mainly upon the use made of cotton seed itself. As a matter of fact, however, it is proved by chemical analysis, corroborated by the experience of the older cotton-growing states, that the importance of cotton seed to the soil is far greater than is indicated by its proportion to the lint crop. For out of 45 pounds of mineral plant-food withdrawn from the soil by the seed cotton required to make a 400-pound bale, but a little over 4 pounds are contained in the lint, the rest remaining in the seed. In other words, the withdrawal of one crop of cotton seed from the soil is equivalent to the drain created by ten crops of lint. Practically, cotton lint could be grown indefinitely upon most of the better class of soils without other return than the cotton seed itself.

The oil extracted from the seed, however, contains little that is of any consequence to the soil. The seedcake and hulls would be nearly as good as the whole seed. The seedcake *without* the hulls would be equivalent to more than three-quarters of the seed when returned to the field as a manure.

The cotton-seed oil manufacture, therefore, does not only not detract necessarily from the returns to the soil, but puts the most important portion of the crop into a far more convenient shape for use, both for feed and manure, than the raw cotton seed.

## 250 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

It is desired, by the aid of the data furnished by you, to place this important subject clearly and authentically before the cotton growers, showing them by the irresistible logic of figures that the cotton-seed oil mill is to them the means of utilizing a waste product, increasing materially their home supply of available stock feed, and at the same time of maintaining the fertility of their soil, instead of paying heavy tolls to manufacturers of chemical fertilizers, transportation companies, and provision merchants.

Late experiments having appeared to indicate that among the most available and profitable modes of returning cotton seed or its oil cake to the fields is the feeding of sheep, thus producing cotton and wool on the same field, as it were, any data you may be able to furnish on this and related points will be especially welcome.

Many persons to whom this circular may be sent who are not manufacturers of cotton-seed oil, will be able to reply to all the questions in respect to the use of the seed, hulls, and meal for feed and for manure, and they are urgently requested to give such replies, especially as to the feeding of sheep and the effect of cotton seed thus used upon the production of wool.

1. Name and style of your mill or firm.  
Location—town or city; county; state.
2. What is your maximum working capacity? Hullers; presses.
3. What patent or style of huller preferred?
4. From what region of country do you draw your supplies of seed?
5. What is the price per ton usually paid by you?  
What amount of seed have you worked during the past season?
6. Do you use any process or machine prior or subsequent to the hulling process for removing lint left by the gin, or the short fur of the seed?  
Do you find it a paying process, whether as to the value of the shoddy produced or the increased yield of oil?
7. Into what proportions of "kernel" and "hulls" does the huller used by you divide your seed?
8. How much oil cake do you obtain per ton of raw seed?
9. How many gallons of oil, crude, per ton?
10. What proportion of your oil cake do you sell for home use?  
If any, is it called for in cakes or ground?  
For use as feed; or as manure?
11. Please state what, according to your best information, are its merits or demerits for either use.
12. Do you find any sale for cotton-seed hulls? For packing; stock feed; any other purpose?
13. Do you use the hulls for fuel? If so, are they sufficient to make all the steam you need?
14. Are the ashes valued as a manure? If so, for what cultures chiefly, and what price paid for them?
15. Do you refine your oil yourself, or is there a growing tendency to the establishment of separate refineries?
16. What knowledge have you of the use of cotton seed or meal as a manure for sugar cane, and of its effect on the production of sugar?
17. Please give such other information or suggestions regarding possible and desirable improvements in this industry as may be pertinent to the object of these inquiries.

## FOREST PRODUCTS.

### AMOUNT OF WHITE PINE STILL STANDING.

[It is the desire of this office to make as careful a study of the amount of white pine still standing in the United States as circumstances will permit.

To facilitate this investigation and to supply this office with more detailed information in regard to the lumber industry of the country than has been derived from the returns of the enumerators, you are earnestly requested to answer the accompanying questions, and return your answers to this office as early as practicable.]

From ..... lumber and saw mills, situated in ..... County of ..... State of .....

1. Please state number of thousand feet of pine sawed during the year ending June 1, 1880.
2. State cost of pine logs sawed during the year ending June 1, 1880.
3. State number of thousand feet of lumber, other than pine, sawed during the year ending June 1, 1880.  
State cost of all logs, other than pine, sawed during the year ending June 1, 1880.

## COOPERAGE STOCK.

Location of establishment—county; town or city; state.

Name of proprietor, agent, or superintendent; post-office address.

[N. B.—This schedule is designed to elicit information which is to be used in the preparation of a special report upon the different kinds of wood used in the manufacture of cooperage stock in the United States.]

1. Nature of articles manufactured in your establishment. (State whether headings, staves, or both, and whether for hogsheads, barrels, kegs, tubs, pails, or other articles.)
2. Kinds of wood used. (Erase kinds not used by you.)

Kinds of wood.	Quantity of each kind, in board-feet or cords.	Value of each kind as delivered to you.	Sources from which you procure each kind.
Red oak .....			
White oak .....			
Other oaks .....			
Southern pine .....			
White pine .....			
Spruce .....			
Poplar (or cottonwood) .....			
Ash .....			
Elm .....			
Birch .....			
Beech .....			
Other woods { .....			
{ .....			

3. Number of hoop-poles used annually: value.
4. Total value of annual product.
5. Have you noticed any deterioration in the quality of stock received within the last ten years? If so, to what extent, and from what cause?
6. Please state your views, with the reasons on which they are based, as far as you are disposed to do so, upon the question of the future supply of the woods used by you, and whether you have any apprehension of a future scarcity of the same.
7. Please make any general remarks upon the American woods used by you, or upon other woods which might become valuable for your business.

Remarks.

## COOPERAGE DONE BY FLOURING AND GRIST MILLS.

[It is the desire of this office to make as careful a study of the amount of cooperage done at large flouring and grist mills in the United States as possible. To facilitate this investigation and supply this office with more detailed information in regard to the cooperage industry of the country than can be derived from the returns of the enumerators, you are earnestly requested to answer the accompanying questions, and return your answers to this office as early as practicable.]

1. From ....., flouring and grist mills. Location: ....., County of ....., State of .....
2. Do you manufacture or purchase the barrels used at your establishment?
3. If you purchase your barrels, state from what sources you procure them.

Remarks.

## DESTRUCTION OF FORESTS BY FIRE.

[The destruction of the forests of the country by the rapid increase of forest fires presents a serious economic problem for future legislation; and it is the desire of this office to make as thorough a study of the whole subject in connection with the special investigation into the Forest Wealth and Forest Area of the country, undertaken in connection with the tenth census, as circumstances will permit.]

That you may understand the importance of this subject it will be merely necessary to call your attention to the fact that is generally conceded by those best able to form an opinion on the subject, that a larger area of our forests is every year destroyed by fire than by all other causes combined, and that forest fires are rapidly increasing in number and extent.

## 252 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

That an approximate estimate of the value of property annually destroyed in the United States in this manner may be obtained, you are requested to return to this office such answers to the accompanying questions as it may be in your power to give.]

1. State; county; township; post-office.
2. Area in acres or square miles burned over in your town or township, by forest fires, during the year 1880.
3. Approximate value of property destroyed during the year, in your town or township, by forest fires.
4. Approximate area annually burned over by such fires, in your town or township, during the last ten years, and the average value of property annually destroyed in this manner during that time.
5. By what causes are such fires generally produced?
6. Please make any suggestions which may occur to you in regard to the general subject of forest fires; their causes, and the methods by which they may be prevented or diminished.

### FOREST LANDS ON INDIAN AND MILITARY RESERVATIONS.

1. Name and character of reservation.
2. Location, stated as precisely as possible.
3. Area in square miles.
4. Area of forest lands in square miles.  
Estimated? or measured?
5. Estimated amount of timber per square mile.
6. Distribution of timber, whether confined to the mountains or descending into the valleys.
7. Kinds of timber found.  
(a) Botanical names, if known.  
(b) Local names.  
(c) Relative proportion of each.
8. If wood is used to any considerable extent by the Indians, how much and for what purposes.
9. Are any considerable depredations made by whites; if so, to what estimated extent?
10. Amount of timber cut yearly upon the reservation.
11. Value of same upon the spot.
12. Has any considerable amount of standing timber been destroyed by fire? If so, the area in square miles. By whom were the fires set—whites or Indians—and for what purposes?
13. Mark on the accompanying map the wooded regions.
14. State any other information you may have bearing upon forest area and products.

### FUEL (WOOD) CONSUMED ANNUALLY FOR DOMESTIC PURPOSES.

County of ....., State of .....

What is the average number of cords of wood consumed annually by a family of five persons in your county?

What is the money value per cord?

### FUEL CONSUMED DURING YEAR ENDING MAY 31, 1880.

Fuel consumed in ....., County of ..... and State of ..... during the twelve months commencing June 1, 1879, and ending May 31, 1880, as enumerated by me. ...., Special Agent.

Name of consumer.	Anthracite coal.		Bituminous coal.		Coke.		Wood.		Charcoal.		Other fuel.	Total Value.
	Tons.	Value.	Tons.	Value.	Chaldrons.	Value.	Cords.	Value.	Bushels.	Value.	Value.	
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

## FUEL USED FOR HOUSEHOLD PURPOSES.

1. Is wood or coal the chief fuel used for household purposes by the people of your county?
2. If both are used, please give me a rough estimate of the proportion of each.

## KINDS OF WOOD USED IN MAKING GUNPOWDER.

Name of mill or factory: .....; situated in ....., in the County of ....., State of ....., during the twelve months beginning June 1, 1879, and ending May 31, 1880.

[Insert here name of proprietor, agent, or other officer in charge, with title.]

Street and No.; post-office; state.

1. What is the quantity of wood used annually by you for charcoal for the manufacture of gunpowder?
2. Do you convert any or all of it into charcoal yourselves, or is it done for you specially, or for general sale; if you convert a part, how much?
3. What is the value of wood so used annually?
4. From what sources is it procured?
5. State kinds of wood used.
6. What kinds of wood do you prefer, and for what reasons?
7. What is your average annual consumption of charcoal?
8. State total value of charcoal used.
9. State quantity of wood used annually by you for fuel—cords; value.

Remarks.

## KINDS OF OAK BARK AND SUMAC GROUND FOR TANNING AND DYEING PURPOSES.

Name of mill or factory: .....; situated in ....., in the County of ....., State of ....., during the twelve months beginning June 1, 1879, and ending May 31, 1880.

[Insert here name of proprietor, agent, or other officer in charge, with title.]

Street and No.; post-office; state.

Oak bark:

1. What kinds of bark do you use?
2. State kind and quantity of bark used annually, and cost per ton delivered at your works:

Kinds of bark used.	Quantity used annually. Tons.	Cost of each kind per ton delivered.
(a)	(a)	(a)

*a* Several blank lines are printed in schedule.

3. What is the nature of your product or products, viz: Extracts or ground bark—for dyeing or for tanning purposes?
4. What is the amount of your annual product (of each)?
5. State total value of your annual product.
6. What are the prospects for a supply of good bark in the future from the same sources whence you now procure your supply?

Sumac:

1. Average cost of material per ton delivered at your mill?
2. Average value of your product per ton.
3. Average annual value of your product.
4. Do you grind only leaf, or stems also?

Remarks.

## RETURN OF UNCULTIVATED NATIVE NUTS.

[In order to complete the statistics of the Forest Wealth of the country, showing the amount of material taken annually from our native woods, it has been thought desirable to obtain, as fully as possible, statistics of uncultivated native nuts gathered and distributed for consumption.]

Kinds of nuts.	Quantity in bushels handled in 1880 by you.	Gross value, as received by you.
(Erase names of kinds not handled by you.)		
Beech nuts.....		
Black walnuts.....		
Butternuts.....		
Chestnuts.....		
Hickory nuts—bull heads.....		
Hickory nuts—shellbarks.....		
Pecan nuts.....		
Total.....		

## VENEERING MANUFACTURED FROM NATIVE WOODS.

Name of mill or factory: .....; situated in ....., in the County of ....., State of ....., during the twelve months beginning June 1, 1879, and ending May 31, 1880.

[Insert here name of proprietor, agent, or other officer in charge, with title.]

Street and No.; post-office; state.

1. What kinds of native wood do you use for the manufacture of veneers? .
2. What was the total amount (in feet) of native woods cut by you in 1880?
3. State the total value of the veneers produced by you from native woods in 1880.

Remarks.

## KINDS OF WOOD USED IN MAKING WHEELS AND WHEEL STOCK.

Name of shop or factory: .....; situated in ....., in the County of ....., State of ....., during the twelve months beginning June 1, 1879, and ending May 31, 1880.

[Insert here name of proprietor, agent, or other officer in charge, with title.]

Street and No.; post-office; state.

Hubs:

1. Kinds of wood used by you.
2. Quantity of each kind used annually (if not in board measure, specify the unit used).
3. Cost of each kind as delivered to you.
4. Source whence each kind is procured.
5. Proportion of each kind received unsawed.
6. Amount of annual product; value.

Spokes:

[The six inquiries given above under "Hubs" are repeated as inquiries 7 to 12 for "Spokes."]

Rims or fellies:

[The six inquiries given above under "Hubs" are repeated as inquiries 13 to 18 for "Rims or fellies."]

19. Have you noticed any deterioration in the quality of stock received within the last 10 years? If so, to what extent, and from what cause?
20. Please state your views, with the reasons on which they are based, as far as you feel disposed to do so, upon the question of the future supply of the woods used by you, and whether you have any apprehension of scarcity of the same.
21. Any general remarks upon woods used by you, upon other uses of these kinds, or upon woods which might become available for your purposes.

## WOODLANDS.

1. Name of correspondent; post-office; county; state or territory.
2. Area of county in square miles.

3. Area of forest land, in square miles, in your county:  
Estimated; measured.
4. Is the timber distributed uniformly, or is it confined to certain parts of the county?  
If the latter, to what parts?
5. General character of woodlands in your county.  
The principal kinds of timber trees composing them.
6. Are the woodlands in your county chiefly original forest or sprout lands?  
If the latter, how long, on an average, since they were last cut over?
7. Average estimated amount of lumber per acre, in thousand feet, in original forest growth in your county.  
In second growth.  
Estimated yield in cords of wood per acre in each.
8. Average amount of woodlands annually cut over in your county.
9. Average area of woodlands annually destroyed by fire in your county.
10. Causes of such fires, whether set intentionally in order to improve pasturage or the result of accident.  
If the latter, to what cause can such fires generally be traced?  
Please suggest some practical method which, in your opinion, would serve to prevent or diminish the occurrence of such fires.
11. When woodland is cleared in your county, either by cutting or by fire, do the same species of trees spring up, or do others take their place?  
If the latter, what are the prevailing species coming in, and what in your opinion is the cause of such rotation?
12. Is it the custom to allow cattle, hogs, and other domestic animals to range in the woodlands of your county?
13. What sort of wood fencing is principally used in your county?
14. Are there in your county any manufacturing industries using wood which has not previously passed through the sawmill? (This does not apply to wood used as fuel.) If so, please state the nature of such industries, and, if convenient, the address of their proprietors.
15. Please give any information, not covered by the above questions, in regard to the woodlands of your county, their value, products, and best methods of preserving or renewing them, etc., which may occur to you.

**KINDS OF WOOD USED IN MAKING WOOD PULP, EXCELSIOR, SHOE PEGS, BASKETS, ETC., MATCHES, OARS, AND HANDLES FOR AGRICULTURAL IMPLEMENTS.**

Products of industry in (name of establishment), ....., situated in ....., in the County of ....., State of ....., during the twelve months beginning June 1, 1879, and ending May 31, 1880.

[Insert here name of proprietor, agent, or other officer in charge, with title.]

Street and No.; post-office; state.

Schedule of proposed questions to be addressed to manufacturers of wood pulp, excelsior, baskets, matches, shoe pegs, oars, and handles for agricultural implements:

1. What do you manufacture?
2. What kinds of wood do you use?
3. From what sources is each kind procured?
4. What kinds do you prefer, and what are the reasons for such preference?
5. What is the average cost of each kind delivered at your works (or value, if cut by yourselves)?
6. What proportion, if any, of the wood received by you has passed through a regular sawmill other than your own?
7. What proportion of each kind is received by you unsawed?
8. What is the quantity of each kind of wood used by you annually (in board measure, if possible)?
9. What is the total amount of your average annual product?
10. What is the value of your average annual product?
11. What is the quantity of wood used annually by you for fuel?
12. What is the total value of wood so used?
13. What proportion of your product is exported and what is its value?
14. If you manufacture handles, do you confine yourself to the manufacture of certain special handles, as shovels, scythe snaths, etc.? If so, to which?
15. What kind of sawed or dimension lumber do you use?

Remarks.

## FRUIT GROWING, ETC.

### FRUIT GROWING AND ORCHARDS.

#### ORCHARD FRUITS.

##### A.—*Field of the inquiry.*

1. What area does the following report cover? Name the county or the town or towns embraced in your statement.

##### DISTRIBUTION.

2. What proportion of area planted in orchards is occupied by each kind of fruit?  
Apples; pears; peaches; plums; other fruits.
3. Are there climatic, economic, or other causes peculiar to your county controlling such distribution? If so, indicate them.
4. What one variety of each kind of orchard fruits is most grown?  
Of apples.  
Of pears.  
Of peaches.  
Of plums.  
Of cherries.
5. Name in order of preference the principal varieties cultivated for market.  
Apples.  
Pears.  
Peaches.
6. Name the principal varieties deemed best in quality.  
Apples.  
Pears.  
Peaches.

##### B.—*Soils, culture, growth, ripening, and yield.*

7. Describe the soils which in your locality are best suited to each kind of fruit.
8. What kind and amount of soil-preparation is customary before transplanting?
9. Are the trees in any considerable quantity procured from nurseries in other States? With what comparative results?
10. At what age is each kind usually transplanted? At what distances set? Age at transplanting; distance apart?  
Apples.  
Pears.  
Peaches.
11. Average height and diameter of home-grown trees of such age:  
Apples.  
Pears.  
Peaches.
12. What kind and amount of cultivation is given to young orchards with the best results, and how long kept clear of other crops?
13. How are the older or bearing orchards usually treated:  
(a) Kept in grass?  
(b) Planted in other crops?
14. What secondary crops are grown in cultivated orchards, and with what effect upon the vigor and productiveness of the trees?
15. Comparative results of tillage (with manuring) of orchards and of keeping in grass with top-dressing.
16. Amount and frequency of top-dressing when practiced.
17. Effect of fertilizers in the promotion of bearing, either in quantity produced in the bearing year or in inducing fruitfulness in the intervening year.
18. What varieties of apples are more liable than others to overbear in alternate years?
19. Instances of overbearing in the history of a single apple orchard for a term of years.
20. What six varieties come first into bearing after being grafted, and in what time?  
Apples.  
Pears.  
Peaches.

21. What is the usual time of ripening in your vicinity?  
Of the Red Astrachan apple.  
Of the Bartlett pear.  
Of the Early Crawford peach.  
Of the Damson plum.  
Of the Early Richmond cherry.
22. What situations, slopes, and exposures are found most desirable for orchard sites?
23. What effects of shelter from winds have been observed, favorable or unfavorable?
24. Of the whole number of trees growing in orchards, about what proportion have come into bearing?  
Apples.  
Pears.  
Peaches.
25. What varieties are most productive in a term of years?  
Apples.  
Pears.  
Peaches.
26. What is your estimate of the life of orchards and the number of crops borne?  
No. years? No. full crops? No. partial crops? (a)  
Apples.  
Pears.  
Peaches.
27. Give facts of actual yield of certain orchards (of specified number and age of trees) for a term of years.

## C.—Marketing and consumption.

28. Are orchard fruits brought from distant points to supplement your local supply?  
If so, what kinds principally? Name the places from which received.
29. What proportion of the supply is produced in your county? In good years; in poor years.  
Apples.  
Pears.  
Peaches.  
Plums.  
Cherries.
30. Is any portion of the marketed products sent to distant markets? If so, what kinds, and to what extent?
31. What degree of care and method is exercised in sorting and marketing, and with what difference in pecuniary returns? Illustrate by suggestive facts.
32. What styles and sizes of packages are used, and which is preferred?  
For apples.  
For pears.  
For peaches.  
For other fruits.
33. Distances to principal markets, and cost of freight.
34. Usual commissions paid for selling.
35. What abuses and frauds to the injury alike of grower and honest dealer have been practiced in your markets?
36. Are drying, preserving, and canning for market practiced? By what methods and with what comparative profit? Give examples of best results.
37. What proportion of apples in your county in a good bearing year is consumed in a fresh state? What proportion canned, dried, or preserved? What proportion lost by decay?
38. Similar returns may be made as to peaches in principal peach districts.
39. What methods are found most successful for late keeping of apples and pears?
40. Average prices of apples per bushel during 1879. Give prices of specific varieties most abundant, selected or first grade in quality, hand-picked.
41. Average prices of apples sold for cider—in good years; in poor years.

## D.—Diseases, insects, early freezing, etc.

42. What causes usually the heaviest losses of fruit?  
Of apples.  
Of pears.  
Of peaches.  
Of plums.  
Of cherries.

---

a Not less than 0      of a full yield.

## 258 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

43. What is the comparative liability in your district to loss from early freezing?
44. What means, if any, are used for protection of orchards against effects of frost in spring? Comparative efficiency of such means.
45. Has the twig-blight or the spur-blight appeared in apple orchards?
46. Has the fire-blight appeared in your pear orchards? If so, what injury has been caused, and what remedial or preventive measures found efficacious?
47. Does leaf-blight prevail? If so, to what extent?
48. Is there much injury from cracking of the fruit? How caused, and by what means remedied?
49. Have peach orchards been attacked by the "yellows," "curled leaf," etc.? What means of prevention have been effective?
50. What degree of injury has been wrought by "black knot" in plums or cherries within the past two years?
51. What other diseases prevail among orchard fruits? How described? And to what extent injurious?
52. What course of culture or treatment has best conserved the health and vigor of orchards, thus preventing inroads of disease?
53. Is the codling-moth destructive to apples in your county? the canker-worm? the borer? other insects? To what extent?
54. To what extent is the borer destructive of peaches?
55. Is the plum curculio prevalent? With what effect upon production?
56. What insecticides or means of protection against insects have been found effectual?
57. Please send names of two of the most skillful and intelligent orchardists of your county.

### FRUIT TRADE OF CITIES.

#### RETURN OF DEALER IN FRUITS.

1. Name of dealer.
2. Kinds of fruit handled.
3. Where grown?
4. Average distance brought.
  - (a) From what places?
5. By what conveyance?
  - (a) Water—steam.  
Water—sail.
  - (b) Land, railroad, freight.  
Railroad, express.  
By wagons.
6. What is the usual cost of freight from principal points? per hundred; per barrel; per box.
7. What kinds and sizes of packages are used for different species of fruits?
8. What is the cost of such packages, respectively?
9. Are your goods purchased, or are they received on commission?
10. What is the usual commission?
11. Usual date of first receipts and length of market season:

Kinds.	Date of first receipts.	Date of last receipts.
Peaches.....		
Apples.....		
Pears.....		
Plums.....		
Quinces.....		
Blackberries.....		
Whortleberries.....		
Strawberries.....		
Raspberries.....		
Currants.....		
Watermelons.....		
Cantaloupes.....		
[Name other fruits of local market.]		

12. Proportion of sales for local consumption.  
Proportion of sales for shipment elsewhere.
13. To what points are your shipments made?

14. What are the quantities and values of goods sold during your trade year, from ....., 1879, to ....., 1880:

Kinds.	Quantities.	Average price.	Total value.
Peaches .....			
Apples .....			
Pears .....			
Plums .....			
Quinces .....			
Blackberries .....			
Whortleberries .....			
Strawberries .....			
Raspberries .....			
Currants .....			
Watermelons .....			
Cantaloupes .....			
Other fruits .....			

15. What proportion of all fruits is lost by decay in the hands of the seller?  
 16. What are the present year's receipts compared with those of previous years?

## TROPICAL FRUITS.

Statement of tropical fruits shipped by ....., from October 1, 1880, to April 1, 1881. Reported by ....., (post-office:) ....., (county:) .....

Date.	Number boxes of oranges.	Number boxes of limes.	Number boxes of lemons.	Number of cocoanuts.	Number of pineapples.	Guavas shipped.
1880:						
October .....						
November .....						
December .....						
1881:						
January .....						
February .....						
March .....						

Where fruit has been shipped in any other manner than indicated in this schedule, correct the schedule to conform to the facts in each particular case.

## TROPICAL FRUIT TREES.

[Circular requesting information as to number of bearing trees, yield, and value of crop.]

....., ..... County, Fla.

In reply to your inquiries I would state that—

- I have ..... bearing orange trees. The yield last year was ..... oranges; valued at .....  
 I have ..... bearing lemon trees. The yield last year was ..... lemons; valued at .....  
 I have ..... bearing lime trees. The yield last year was ..... limes; valued at .....  
 I have ..... bearing cocoanut trees. The yield last year was ..... cocoanuts; valued at .....  
 I have ..... bearing pineapple plants. The yield last year was ..... pineapples; valued at .....  
 I have ..... bearing banana plants. The yield last year was ..... bananas; valued at .....  
 I have ..... bearing guava trees. The yield last year was ..... guavas; valued at .....

## CULTURE AND KILN-DRYING OF HOPS.

A.—*Location and crop area.*

1. Please name the county which this report covers. (a)
2. How did the hop area of 1879 compare with that of previous years? [State as a percentage.] Increase; decrease.  
With that of 1878?  
With that of 1877?  
With that of 1876?
3. What was the comparative quantity produced per acre in 1879? Increase; decrease.  
Compared with 1878?  
Compared with 1877?  
Compared with 1876?
4. How did the quality of the crop of 1879 compare with that of 1878?  
With that of 1877?  
With that of 1876?

B.—*Soils; varieties; yards, etc.*

5. What soil is preferred in establishing a hopyard?
6. What proportion of your area in hops is of this character?
7. Describe the various soils used in hop culture in your district.
8. Are any of your hopyards underdrained with tile or its equivalent?
9. What is the difference in yield per acre, fertilization and culture being equal, between the best and poorest soils occupied?
10. What varieties are preferred in this district?
11. Have new varieties, noticeable for earliness or other peculiarities, been introduced in recent years?  
Name the varieties and give their peculiarities.
12. How long are hops grown continuously, unmanured, without deterioration in quantity or quality?
13. How long are hopyards kept in annual production when not prematurely abandoned for other cropping promising greater profit?
14. What proportion of yards are plowed up while in productive condition owing to discouragement from low prices?
15. How old is the oldest productive yard known to you in your district? If convenient, give the history of such yard, with annual product.
16. How long after setting of roots is the maximum yield attained?
17. What may be deemed a fair estimate of the product per acre, of a yard in good condition, in average years?
18. What the yield per acre after ..... years of cropping, without fertilizers? With fertilizers?

C.—*Setting; cultivation; growth.*

19. How is the soil prepared for setting?
20. What proportion of the plants set are males?
21. At what date are plants usually set?
22. At what distance apart each way?
23. How many in each hill?
24. What cultivation is given the first season?
25. What other crops, if any, are planted between the hills the first year?
26. What is the usual size of poles? ..... inches diameter; length, ..... feet.
27. How many poles are set for each hill?
28. What cultivation is given to established yards in spring?
29. What amount of subsequent cultivation?
30. Is hand-hoeing practiced? If so, to what extent?
31. What kinds of fertilizers are annually applied?
32. In what quantities?
33. At what time?
34. Are they spread or applied to the hill?
35. Which mode is preferable?
36. What is the effect of liberal fertilization upon quality?
37. What disposition is made of the vines after picking?
38. What is their comparative value as a fertilizer?

---

a If your returns cover less than a county, please indicate the territory represented.

D.—*Picking; curing; baling.*

39. At what date does picking usually commence?
40. How many days before the hops are in the highest state of perfection?
41. What are the indications of ripeness sufficient for picking?
42. How many days are usually occupied in picking?
43. How high above the ground are the vines cut?
44. How many pounds constitute a day's work for an average hand?
45. What is the rate of pay for picking?
46. Are the pickers mostly children; range of ages; are they of both sexes?
47. What is the size of boxes; cost?
48. What wages are paid to other laborers?
49. How long, on an average, do hops remain in bins before drying?
50. Describe the kilns for drying most in use in your district.
51. What is the range of cost of kilns?  
The average cost?
52. Indicate the usual treatment in curing, the degree of heat employed in its different stages, and time occupied.
53. What process makes the most salable product?
54. Is the "cold bleach" practiced in your district?
55. What is its effect on the quality of hops?
56. How long after taking from the kiln before baling?
57. Effect upon color and flavor of lying in a mass before "sweating."
58. What is the usual weight of bales?
59. What material is used for bagging?
60. Quantity and cost of such material in bale.
61. What style of press is preferred?

E.—*Casualties; insects; injuries.*

62. To what extent was the crop of 1879 injured by insects?
63. What recent years have been noted for destruction by insects or other causes?  
By what insects mainly?
64. What cause usually produces the greatest injury?
65. What is the cause of mold in hops?
66. How is damage from this cause obviated?
67. Do hop growers practice the setting of strong roots from healthy hopyards of distant districts in replacing diseased plants?
68. What means are employed for the destruction of the hop aphid?
69. How are injuries of the hop-borers successfully met?
70. What causes of loss in 1879 were most prominent?
71. What would you estimate the percentage of average loss in your district from insects?

F.—*Marketing and prices.*

72. What differences in price result from differences in care and skill in curing and baling?
73. What is the cost of kiln-drying?
74. What is the cost of baling, including material?
75. Average value per pound of the crop of 1879.
76. Value of roots per hundred for setting in the spring of 1880.
77. What is your estimate of the cost of a hopyard up to the time of bearing?

## MEAT PRODUCTION.

## CATTLE FEEDING.

1. Do you breed or purchase the cattle that you feed for market?
2. If you breed them, what is your system of breeding; i. e., from what kind of cows and from what kind of bulls do you get the intended beef animals?
3. What is your management with this home-bred stock from birth to beef; i. e.—A, When are they weaned?—B, When does feeding other than grass and hay begin?—C, If run solely on grass and hay as youngsters, at what age does "feeding" proper begin?—D, How long does feeding continue to produce beef?—E, What disposition is made of the heifer calves?—F, Are all the bull calves made steers?

262 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

4. If you purchase the cattle you feed—A, Where and when do you buy them?—B, Of what grade are they?—C, What is their average age at purchase?—D, Do you buy all steers?—E, What is their average weight?—F, What the average cost?—G, What has been their feed up to the time of your purchase?—H, Do they come direct to your hands from their native pasture, or have they, since leaving the region where bred, been grazed or fed in other state or territory?
5. What was the average number of your beef herd in 1880?
6. Of this number how many were of your own breeding, and how many were purchased?
7. Do you feed in open field, under shed, or in barn (stall feeding)?
8. Do you feed grain in the ear, or do you shell, grind, or crush?
9. Do you feed roots, oats, peas, oil cake, or anything other than corn?
10. A, Do you cook or steam feed for cattle?—B, Does the cooking of feed compensate for the expense?—C, If it is profitable, what is the percentage of gain in pounds over what is raw fed?
11. When at pasture how many pounds do you expect to put on your average steer from purchase to "feeding;" or how many pounds do you estimate your average steer to gain per month on grass?
12. What is the amount of grass eaten per steer worth, estimated by the cost, rent, or otherwise?
13. During the "feeding" time how many pounds do you expect to put on your average steer; or how many pounds do you estimate your average steer to gain per month on "feed?"
14. A, How many bushels of corn or other feed (grain, roots, etc.) does the steer consume per month, and at what cost per bushel?—B, Also, how many pounds of hay, and at what cost per cwt.?
15. What do you estimate to be the average cost of putting a pound of flesh on a steer by your mode of feeding?
16. What is the average age of your steers when sold for beef?
17. What is the average gross weight of your steers at sale?
18. What is the average price received per cwt. or otherwise for your beef steer alive?
19. What do you estimate to be the average percentage of dressed meat to live weight in your steers?
20. A, Do you preserve grass in the field for winter pasture?—B, How long and between what dates is this preservation?—C, What are the grasses that will not be injured by frost and storms?
21. How many days of winter feeding are necessary, on an average, because of snow?
22. A, Do you sell calves for veal?—B, What were they worth in spring of 1880?—C, Are they bought for veal or for stock?—D, When bought for latter purpose, where do they go?
23. A, Do hogs follow your cattle?—B, How many hogs do you count to one steer?
24. Is this partly-digested grain the only feed other than pasture that the hogs get?
25. What amount of, or percentage of, the expenses of your business do you estimate to be offset by the running of hogs with your cattle?
26. What do you calculate from actual experiment, or from an estimate without record, to be the cost of raising a head of beef from birth to sale, including first value, interest, labor, feed, etc.?
27. What do you calculate, from actual experiment or otherwise, to be the cost of running a steer from purchase to sale as beef?
28. In your opinion, what is the best breed of bulls for getting beef combining quantity, quality, early maturity; and will this same breed preferred by you on farms east of the Missouri answer the best purposes on the ranch ranges farther west, where pasture must be traveled for and exposure endured.
29. To what beef market do your sales go?
30. Do they go alive or in carcass.
31. Please give whatever information you may possess of disease among cattle in your state?
32. Does your state produce more or less beef than she consumes?
33. If more, where goes the surplus?
34. If less, whence comes the supply?
35. Will you refer me to any published statement concerning the meat production and consumption of your state?
36. As the questions submitted may not cover modes of raising and feeding cattle for beef peculiar to some sections and individual systems, will you kindly add here such an account as shall convey the full and accurate information desired, stating your own opinions and practice to supply any omissions in the foregoing?

progress, indicated by  
of subsequent crops?  
past ten years? If so,  
other fertilizing, is best

ing," respectively. Give  
seed growers.

heat; with wood; with  
results?  
used; how can it be pre-

... to .....  
to .....  
different modes or vary-

bring" and in New Eng-  
sion?  
ation?  
?  
rent years?  
orm.

other means?  
lays the eggs producing  
hailstorms? How gen-

the crop of your county?

THE

can resemble the Cuba

iv, does it deteriorate in  
seed?

## 264 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Please state number of cattle owned January 1, 1879.

Please state number of calves branded during the year ending December 31, 1879.

Please state number of cattle purchased during the year ending December 31, 1879, according to kinds :

Yearlings.

Two-year olds.

Steers of 3 years and upward.

Cows.

Bulls.

Total number purchased.

Please state the number of cattle purchased *within* the state.

Please state the number of cattle purchased *beyond* the state.

From what states were these latter purchased?

Please state the number of cattle sold or shipped to parties *within* the state.

Please state the number of cattle sold or shipped to parties *beyond* the state.

Please state the total number owned January 1, 1880.

Please designate the location and extent of your range.

### CONDUCT OF CATTLE HUSBANDRY.

Investment and outfit:

Please make a statement of the investment, cash value, in your business; i. e., not necessarily the facts of your own business, but with figures proportioned from your general experience—a fictitious account, if you will, of the figures probable under similar circumstances:

Acres of land free range; value.

Acres of land owned; value.

Acres of land leased at ..... per acre; amount.

Buildings and fences; value.

Equipment in vehicles, harness, tools, etc.; value.

Horses with .....; value.

Sundries with .....; value.

Total value of "plant."

### LABOR, REGULAR WAGES, ETC.

Please state the number of men employed steadily through the year, and the wages paid:

..... men at \$...... per month and board included; amount.

Cost of regular labor; amount.

### LABOR, WAGES, ETC., OCCASIONAL.

Please state the occasions of extra labor, the number of men employed in the same, and the wages paid.

At "round up" ..... extra men at \$...... per day, rations or board included; amount.

At ..... extra men at \$...... per day, rations and board included; amount.

Cost of occasional labor; amount.

### ORGANIZATION AND METHODS.

What changes are made for summer and winter grazing, and when are the changes made?

Are your cattle ever corraled, and when?

Are your cattle ever fed?

For how long in the average winter?

On what are they fed?

This feed, or these articles of feed, what is the estimated cost of each per ton, or per bushel, where fed?

Of this feed, or these articles of feed, how many pounds or how many bushels do you feed to, say, 100 head of cattle per day?

Do you keep a certain amount of land (and how many acres) under fence from which to cut hay for winter use?

How long after birth are young stock castrated?

Do you ever spay heifers? If so, what is your experience of the results?

What is the smallest number of cattle that can be economically run?

As the questions submitted may not cover the systems of cattle management in the various regions considered, the census office will be obliged to you for a general

outline description of the average management of cattle practiced in your state, and for any account of progress made in the business from its early days to the present time.

LAND.

The custom of holding; acres per head; grasses, etc. How is land held?  
 What is the common practice of holding land in .....?  
 Is it by purchase in whole or part, or by lease, or by pre-emption, or simply by occupation of the public domain?  
 When by occupation merely, in what way do you secure the sole benefit, and what forbids intrusions?  
 Will you please state what changes have occurred in the occupation of lands in your section, and to what result do you think the tenure of land is moving?  
 How many acres of the average grazing land in your part of the country are required to graze 1,000 head of cattle through the year?

GRAZING CONDITIONS.

Please mention the grazing plants in your neighborhood, giving their common and botanical names, and whether there are any injurious to stock. Also the particulars, if you will, of the habits of your forage plants—i. e., comparative nutritive qualities, times of flower and seed, how they cure, etc.  
 Are your ranges temporarily or permanently injured by sheep?  
 Is your part of the state overstocked, fully stocked, or is there room? and which stock is the more numerous—cattle or sheep?  
 How is your county watered, well or scantily, and are there parts of it with grass, but without water? If so, where?

BREEDING OF CATTLE.

Have the weight and quality of the cattle in your state improved since its cattle business began, and will you indicate by some comparison of weights and descriptions, and money value of animals of like age, then and now, the character of the improvement?  
 To what system of breeding and other management do you attribute this improvement?  
 Do you anticipate further improvement in your stock, and if so, what grade or grades of bulls, and what progress in the management of herds will tend to the improvement?  
 At what age must you bring the high-bred bull into your country that he may acclimatize, to have prolificness and hardiness equal to the native animals, and is this secured in the first generation?  
 How many bulls are required with 1,000 cows for the best results?  
 What is the average annual living increase in your part of the country?

HIDES AND BONES.

Of the cattle dying from disease, age, etc., or slaughtered for home consumption, are the hides saved and the bones collected for sale, and what are each worth in the nearest market?

BEEF.

What is average native beef worth per pound by the carcass in your nearest market, and what market is that?  
 What is the average live weight of a 3-year-old steer, range-fed?  
 What is the net weight of the same?

LOSSES IN CATTLE HUSBANDRY.

What do you estimate to be the average percentage of losses from all causes among cattlemen over an average year?  
 From disease: ..... per cent.  
 From storms: ..... per cent.  
 From wild animals: ..... per cent.  
 From snake bites: ..... per cent.  
 From thefts: ..... per cent.  
 From poisonous weeds: ..... per cent.  
 Total loss.  
 To what diseases are cattle subject in your county?

## MISCELLANEOUS.

What do you estimate to be the average profit of the cattle business in your state over a term of five years—say from December 31, 1875, to January 1, 1881?

Will you please state, according to your own best judgment and that of other experienced gentlemen you may be able to consult, the probable total number of cattle actually grazing in your state on the 1st day of July, this year, 1880?

What proportion of the actual number of cattle in your state do you suppose is returned for taxation?

## COUNTY CLERK'S RETURN OF HERDS.

....., County Clerk, County of ....., ..... of .....

For the purposes of an investigation into the present extent and the capabilities of Meat Production in the grazing states and territories, you are respectfully requested to fill out the accompanying form with the information desired from your county records, and according to your own best judgment.

1. Please give totals of cattle, sheep, and swine from the last record of returns made for assessment in your county.
2. Please give the name, address, and number of head of cattle returned by each of the seven largest cattle owners in your county:

Name.	Post-office address.	Number of cattle.
(a)	(a)	(a)

a Several blank lines are printed in schedule.

3. Please give the name, address, and number of head of sheep returned by each of the four largest sheep owners in your county:

Name.	Post-office address.	Number of sheep.
(a)	(a)	(a)

a Several blank lines are printed in schedule.

4. Please give the name, address, and number of head of swine returned by each of the four largest swine owners in your county:

Name.	Post-office address.	Number of swine.
(a)	(a)	(a)

a Several blank lines are printed in schedule.

5. According to your own best judgment, and that of other experienced men you see fit to consult, and independent of statement No. 1, above, how many, each, of cattle, sheep, and swine are actually owned in your county?

Cattle; sheep; swine.

6. What portion, each, of the cattle, sheep, and swine, just above (in 5) given as actually owned in your county, is pastured in the same county?

Cattle; sheep; swine.

7. How many, each, of cattle, sheep, and swine are probably pastured in your county, no matter where owned?

Cattle; sheep; swine.

8. Statements 1, 2, 3, and 4, are of the tax returns of what date?

Up to ..... day of the month of ....., of the year .....

## EFFECT OF WINTER OF 1880-1881 ON CATTLE AND SHEEP.

1. Was the winter of 1880-1881 unusually severe on cattle [or sheep] in the section of country ranged by your stock?
2. Please designate that section.
3. Was the feed good when the winter set in?
4. What is your individual experience of the percentage of loss?
5. What is your estimate of the average percentage of loss throughout the herds known to you?

## HOG RAISING.

1. Please state, in months, the estimated average age of all hogs slaughtered.
2. Is the average of swine slaughtered less than in former years? Estimate the average of ten years ago.
3. Seeking to ascertain the yield of pork by different methods of fattening—i. e., if hogs sell gross at, say, \$3.50 per 100 pounds, what would be the pecuniary return to the bushel of corn fed, and similarly for other grains, I would ask—
  - A. At what age do you begin fattening?
  - B. What amounts and kinds of feed do you give to the hog from the above age to slaughter?
  - C. What is the approximate value of this kind of feed, or what are the approximate values of these kinds of feed in your section?
  - D. Are hogs kept on grass, when, and for how long?
  - E. Does it pay to cook feed for hogs?
4. Do you prefer pure-bred hogs or crosses for pork production?
5. Which breed do you consider best?
6. At what age do you begin to breed—boars? sows?
7. What number of sows allowed to each boar?
8. What is the average animal increase, counting only those that survive weaning?
9. What diseases are prevalent in your section among hogs?
10. What is the cost per head for transportation from your section to its principal market?
11. What do you estimate to be the average loss in weight during this transportation?
12. What do you estimate the loss from accident during transportation?
13. What do you estimate your hogs to cost you per 100 pounds up to delivery for slaughter?
14. Finally, will you have the kindness to give an outline description of the average manner of rearing hogs for market in your section?

## PASTURES AND RANGES FOR CATTLE AND SHEEP.

1. What region is embraced by the statements following?  
Please describe as accurately as possible by means of well-known natural boundaries.
2. Do you know of any important streams, springs, or natural reservoirs of water that have disappeared or failed, entirely or in part, thus diminishing the area available for pasture? If so, what are the facts, and what is the nature of the surface rock?
3. In your opinion, are the pastures and ranges in your region of country decreasing or increasing in quantity and quality of feed?
4. Are the pastures and ranges temporarily or permanently injured by sheep grazing?
5. What is the character of the storms in your section, and is there danger in wintering stock without feeding them?
6. What are the botanical and popular names of the prevailing grasses, and what are their characteristics and relative values as feed?
7. Please give the names and addresses of the most extensive cattle owners; also, those of the most extensive sheep owners in your section.
8. Please define upon the inclosed map the area covered by this report, and within those limits put down as fully as practicable the information indicated in the memorandum on fourth page.

## 268 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Suggestions respecting the manner of indicating the information desired upon the map inclosed herewith:

1. Please designate on map as definitely and in as detailed a manner as possible the following data:
  - (a) Areas of good grazing land.
  - (b) Areas of indifferent grazing land.
  - (c) Areas of grass land that can not be utilized for grazing because of want of water.
  - (d) Areas in which the grass has been destroyed by overstocking.
  - (e) Areas of timbered land.
  - (f) Areas of desert land, i. e., useless for grazing and without timber.

(It would be well to indicate the limits of the above areas by lining with colored pencil or ink.)

(It is premised that all lands fall in one or another of the above classes.)
2. Please mark on map with "Cattle" or "Sheep" any localities where either one or the other is known to have grazed for a considerable portion of the past year. If both stocks have occupied such localities please mark with "C and S," or "S and C," according as cattle or sheep have prevailed. If the limits or divisions between the different stocks are known, please dot them in red ink, if convenient. If there are no animals, or but few, in regions of grazing lands (a) or (b), please write on those areas "Room." Please mark the position of ranches or resident stockmen "¢" or "§," according to the kind of stock held, whether cattle or sheep.

### RAILROAD TRANSPORTATION OF LIVE MEAT STOCK.

(Cattle, sheep, and swine.)

1. At what stations of your road are there loaded in considerable numbers?
  - (a) Cattle.
  - (b) Sheep.
  - (c) Swine.
2. Do these different stocks originate in the neighborhood of these railroad stations, or are they driven from distant points? If so, from what points in each case?
  - (a) Cattle from.
  - (b) Sheep from.
  - (c) Swine from.
3. Freight charge per mile, or otherwise, per car:
  - (a) For cattle.
  - (b) For sheep.
  - (c) For swine.
4. How many of each kind of stock are carried in a car?
  - (a) Of cattle.
  - (b) Of sheep.
  - (c) Of swine.
5. How many cars in a full stock train?
  - (a) Of cattle.
  - (b) Of sheep.
  - (c) Of swine.
6. Estimate of feed consumed for each carload, as above?
  - (a) Cattle.
  - (b) Sheep.
  - (c) Swine.
7. What is the average speed of stock trains, including stoppages?
8. What provision is made for watering stock?
9. What provision is made for rest?
10. How are the stock fed?
11. Average weight per head or by carload of stock carried:
  - (a) Cattle.
  - (b) Sheep.
  - (c) Swine.
12. Average loss of weight during transportation over length of road, in pounds:
  - (a) Cattle.
  - (b) Sheep.
  - (c) Swine.

13. Average amount of loss from death or injury in transportation:  
 (a) Cattle.  
 (b) Sheep.  
 (c) Swine.
14. How many attendants are required per car or train?  
 (a) Cattle.  
 (b) Sheep.  
 (c) Swine.
15. Proportion of live meat stock carried to other freight.
16. When did this business begin on your road?
17. Please give figures, by years, showing its growth.
18. What changes have been made in modes of transportation since the business began?
19. Other information concerning the transportation of meat stock is earnestly and respectfully solicited.  
 If possible, please fill out the tables on the following pages.  
 Number of each kind of stock from each loading point, and destination of each.  
 (It is desirable to obtain, in all cases where possible, the information. Please answer in detail in tabular form on this and the following page.)

Stations from which shipments are made.				Places to which shipments are made.		
Stations.	Number of cattle.	Number of sheep.	Number of swine.	—	—	—
(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

STATEMENT relating to the herd of ....., County of ....., State of ....., for the year ending December 31, 1879.

1. Please state the number of calves branded.
2. State number of cattle purchased:  
 Yearlings.  
 Two years old.  
 Steers of three years and upward.  
 Cows.
3. Where were these cattle purchased?
4. State the number shipped.
5. State the total number owned December 31, 1879.

### SHEEP HUSBANDRY AND WOOL GROWING.

#### AREA COVERED BY THE REPORT.

1. Area covered by this return—district, county, or township?

#### DISTRIBUTION OF BREEDS.

2. What proportion of your flocks are—  
 (a) Merinos and their grades?  
 (b) English or "mutton breeds" and their grades?  
 (c) Unimproved or native stock?
3. What change, if any, has occurred during the last ten years in the proportionate numbers of the above classes of sheep?
4. Of the Merinos, what per cent are—  
 (a) Full-blood?  
 (b) Grades of not less than half-blood?  
 (c) Grades of one-fourth to one-half blood?  
 (d) Grades of less than one-fourth blood?
5. What other breeds are kept, and what is the comparative number and the purity of blood of each?

## 270 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

6. What is the average live weight in your flocks of the following classes of breeds: (a)

	At 6 months.	At 12 months.	Full grown.
(a) Fine wools (Merinos) .....			
(b) Long wools .....			
(c) Middle wools .....			

7. What is the average weight in your flocks of annual fleeces, unwashed, of the following classes of breeds: (a)

- (a) Fine wools.  
(b) Long wools.  
(c) Middle wools.

## PASTURE, FEEDING, ETC.

8. What per cent of your pastures are inclosed? What per cent unfenced?  
9. Which of the following kinds of pasturage are used to any important extent in sheep feeding in the area covered by this report?—Permanent farm pasture | grass in rotation | stubble land | fall feeding of meadow | woodland | abandoned "old fields" | public prairie | dry plains | mountain slopes and plains. [Cross out such as are not used in your district.]  
10. What weight of sheep per acre will your average pastures carry through the summer?  
11. What are the names of the principal pasture grasses, and what is the comparative feeding value of each?  
12. How long is your average grazing season, and season of winter feeding?  
(a) Pasturage—months.  
(b) Winter feeding—months.  
13. At what average date are flocks turned out to pasture?  
14. What is the supplementary feeding, if any, while in pasture?  
15. What is the average date of placing in winter quarters?  
16. What pasturage is there, if any, during the season of winter feeding? Meadow | rye | oats | cowpeas | wheat | other pasture.  
Of these which is preferred, and which principally depended on?  
17. What is the average charge per head per month for pasturage of sheep kept for others?  
18. What is the average cost of keeping sheep per annum?  
(a) For pasturage.  
(b) For winter feeding.  
19. Which of the following kinds of feed are used in your district, and what is the proportionate use of each, compared with the aggregate consumption? [Strike out kinds not used and insert (if necessary) others not mentioned.]  
Grain:  
Corn.  
Oats.  
Oil cake or oil meal.  
Ground flaxseed.  
Cotton seed.  
Fodder:  
Timothy.  
Red clover.  
Alfalfa.  
Pearl millet.  
Hungarian.  
Corn fodder.  
Straw.  
Roots:  
Swedes.  
Mangolds.  
Turnips.  
Sugar beets.

a Space is given for estimate of weight of the various English breeds separately, which constitute the long and middle wool classes.

20. What is the quantity and cost of winter's feed of 100 sheep? [Base your estimate upon the average liberality of feeding, with kinds and proportions in accordance with the local usage indicated in the previous inquiry.]  
Value; quantity.
21. Give results of experiments in feeding cotton seed to sheep.
22. What combination of feed (variety and proportion) has been found most promotive of growth and healthfulness of flocks?
23. What extra feed is most suitable for ewes in lamb?
24. To what age are sheep kept?  
(a) For wool ewes; wethers.  
(b) For mutton ewes; wethers.
25. Are sheep usually herded; corralled or yarded at night; kept in shade at midday?
26. What wages per month are paid to herders?
27. Are flocks provided with sheds or other shelter? If so, of what material, construction, and cost are they?
28. Are yards stationary or movable?

## LAMBS AND MUTTON PRODUCTION.

29. About what proportion of the flocks of your district are ewes?
30. How many lambs are the average annual product of a flock of 100 ewes?  
(a) Fine wools—number.  
(b) Long wools—number.  
(c) Middle wools—number.  
(d) Natives—number.
31. Between what dates are lambs (mainly) dropped? What is deemed the preferable date in your climate?
32. What is the (usual) mortality of young lambs (3 months or less) of every hundred dropped—From exposure; accident; disease?
33. What proportion of lambs surviving are slaughtered?
34. Of lambs for slaughter, what proportion are exclusively grass-fed?
35. When grass is supplemented by other feed, what is the quantity of the daily ration, and of what does it usually consist?
36. What is the difference in net weight and price, at 4 months, between grass-fed lambs and those liberally fed?  
(a) Weight of grass-fed—pounds; price.  
(b) Weight of liberally-fed—pounds; price.
37. Is the raising of early spring lambs made a specialty? If so, to what extent?
38. For this purpose, at what date are lambs preferably dropped? At what age (months) killed?
39. Average weight at that age—gross ——— pounds; net ——— pounds.
40. If the ewes are kept but one year, at what date are they usually purchased? At what date (the following season) are they usually sold for slaughter?
41. Whence is the supply of ewes obtained? Of what breed or grade of sheep? In selection of males, what breed is preferred?
42. Give facts in detail, if available, illustrating cost of keeping, and receipts from wool, lambs, and mutton.
43. What is the average age and net weight of sheep killed for mutton?  
(a) When reared for mutton production—age; weight.  
(b) When drafted from wool-growing flocks—age; weight.
44. To what extent, if at all, is sheep feeding for mutton made a specialty?
45. In such cases, at what date is feeding usually commenced? How long is it continued?
46. What is the average increase in live weight, during that period, of sheep weighing 100 pounds at commencement of feeding?
47. What amount of feed is required (per hundred sheep) for such increase?
48. What is the average price per 100 pounds of sheep suitable for fattening? What is the average price of the same per 100 pounds when fattened?
49. What have you observed of the difference in gain in flesh between a mild season and a very severe one, or between autumn and winter fattening?
50. What is the difference in gain between suitable shelter and exposure to cold or storms?
51. What is the kind and the degree of shelter customary in your district? Describe in detail the kind and cost of such shelter.
52. Give facts illustrating the gain in live or net weight from specified quantities and kinds of feed.
53. Give illustrations of the flesh-taking aptitudes of different breeds.

## 272 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### WOOL, SHEARING, ETC.

54. What is the usual date of shearing?
  - (a) Of washed.
  - (b) Of unwashed.
55. Usual cost per fleece of shearing.
56. Is shearing in autumn practiced by any? If so, to what extent?
57. At what date does autumn shearing occur?
58. When sheared twice, what is average weight of spring clip, ——— pounds; fall clip, ——— pounds.
59. What are the advantages and disadvantages of semiannual shearing?
60. What proportion of the sheep in your vicinity are washed before shearing?
61. In what manner and how thoroughly is washing done?
62. What is the average number of days between washing and shearing?
63. What is the average weight of annual fleeces?—washed; unwashed.
64. What are the advantages and disadvantages of washing?
65. In the sale of wool, what allowance is made in case it is unwashed?
  - (a) In weight.
  - (b) In price per pound.
66. How are fleeces "done up?"
67. What increase in price results from care and neatness in "doing up?"
68. What proportion of the wool in your vicinity is sold by the producers at home? What proportion is shipped by them? To what point is it usually shipped?
69. What improvements are desirable in the methods of packing and handling wool?
70. What is the average proportion of wool to live weight?

	Live weight.	Weight of fleece.
Full-blood Merino rams.....		
Full-blood Merino ewes.....		
Half-blood Merino rams.....		
Half-blood Merino ewes.....		
Native ewes.....		
Cotswold ewes.....		
Southdown ewes.....		

71. What difference is observed in yield of wool of same flocks in different years?
72. What are believed to be the causes of such difference?

### TENDENCIES OF BREEDING.

73. What is the most prominent present tendency in breeding in your district?
74. What changes in characteristics of fleece, if any, have been made during the past ten years?
  - (a) In weight.
  - (b) In density.
  - (c) In length of fleece.
  - (d) In fineness of fiber.
  - (e) In yolkiness.
75. What changes, if any, in—
  - (a) Weight of carcass.
  - (b) Compactness or symmetry of form.
  - (c) Aptitude for fattening.
  - (d) Constitutional vigor.
76. Is the development of wrinkles or folds upon merinos encouraged? If so, with what effect upon the fleece or the constitutional vigor of the animal?
77. Is in-and-in breeding practiced? Under what limitations and with what results?
78. What breeds are preferred in selection of males for improvement of native flocks?
  - (a) For Mexican flocks.
  - (b) For natives.
  - (c) For grades.
79. In selecting sires for crossbred flocks, what is the local preference as to breeds?
  - (a) With Merino ewes.
  - (b) With native ewes.
  - (c) With Mexican ewes.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 273

80. What is your observation of the relative results in cross-breeding of different combinations of blood?
81. Give reasons assigned for preferences for particular breeds by prominent flock masters.
82. Give brief history of introduction of improved breeds, with dates, names, and suggestive facts, as far as practicable.
83. What flocks of thoroughbred sheep, if any, are bred in your county?

Breed.	Breeder.	Post-office.
(a)	(a)	(a)

*a* Several blank lines are printed in schedule.

## CASUALTIES.

84. What is the estimated number lost annually, from all causes, in every 100 sheep?
85. Of each hundred lost, what is the estimated number from each specific cause of loss—disease, exposure, accident, old age, dogs, wolves or coyotes, thieves, snake bites; laurel (*kalmia*), rosin weed, or other injurious plants; other causes?
86. Is the scab prevalent among your flocks? What is the extent of the damage caused by it?
87. Describe the treatment for scab by your most careful and successful flock masters. What are the medicinal ingredients and proportions of the most efficient wash for scab?
88. To what extent does foot-rot prevail, if at all?
89. What conditions favor its extension, and what means of prevention or cure are used?
90. Is liver-rot known to exist in your district? If so, how extensively, and how treated?
91. To what extent do flocks suffer from grub in the head, hydatid on the brain, or other head diseases?
92. Has abortion prevailed in your district? To what feeding or conditions attributed?
93. How is abortion best prevented?
94. What loss occurs from rabies or madness from bites of dogs or other animals?
95. What other diseases have prevailed in your district?
96. What means of prevention of disease are used?
97. How and in what quantity is salt supplied? What of its sanitary or dietetic necessity?
98. How and to what extent are sulphur, carbolic acid, tar, or other condiments and medicaments used?
99. What is the greatest local hindrance to successful sheep husbandry?
100. Give figures, from the history of some representative flock, of the annual cost and profit of sheep husbandry.

## CULTURE AND CURING OF TOBACCO.

### COMPARISON WITH RECENT CROPS.

1. Please state whether the tobacco area of your county, (*a*) in 1879, was greater or less than its area in 1878; in 1877; in 1876.  
What per cent of increase or decrease?

	Increase.	Decrease.
As compared with 1878.....		
As compared with 1877.....		
As compared with 1876.....		

*a* If your return covers less than a county, please indicate the extent of territory represented.

## 274 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

2. Please state whether the yield per acre, in 1879, was greater or less than in 1878; in 1877; in 1876.  
Estimated per cent of increase or decrease:

	Increase.	Decrease.
As compared with 1878.....		
As compared with 1877.....		
As compared with 1876.....		

3. How does the quality of the crop of 1879 compare with that of 1878?  
With that of 1877?  
With that of 1876?

### VARIETIES.

4. What varieties are most extensively cultivated? Give common names, appearance, habit of growth, and reasons for preference.  
5. Peculiarities and special uses of these varieties.  
6. Is there material variation in quality of the same variety of tobacco in different soils?  
Illustrate the range of such differences.

### GRADES OF PRODUCTS.

7. What are the proportions (in hundredths, of the crop of your county) of each grade of cured tobacco? (b)  
Also give the best approximate idea of such proportions ten years ago, to show marked changes in grade and uses of your local product.

	Proportion of each grade.	
	Crop of 1879.	Crop of 1869.
(a) Dark shipping.....		
(b) Fillers.....		
(c) Bright wrappers and smokers.....		
(d) Cutting.....		
(e) Seed leaf (cigar leaf).....		
(f) Nondescript.....		

8. Give reasons for such increase or decrease during the past decade, in each grade, respectively.  
9. Has quality of product improved or deteriorated during the past decade? If so, in what respect and to what extent?

### SOIL.

10. Kinds of soil cultivated in tobacco.  
11. Soil preferred.  
12. Proportion of such soil occupied.  
13. What proportion of the tobacco area is freshly cleared land? Include all successive tobacco crops since clearing of forest.  
14. What proportion of the wooded lands of the county are adapted to growth of tobacco.  
15. What varieties of forest growth upon preferred tobacco soils?  
16. How does the quality of tobacco grown upon freshly cleared lands compare with that grown on lands long cleared?  
17. Does the product of the same variety grown on level and on rolling lands differ?  
18. What is the supposed adaptation of soils to certain varieties of tobacco?

### FERTILIZATION.

19. Are fertilizers used? On what portion of the area cultivated?  
20. What fertilizers are applied? How, and in what quantity? And at what cost per acre?

*b* In some sections all may be of one grade; in others two or three grades are produced; possibly in some all grades may be found.

21. Effect of fertilizers upon—(a) yield; (b) quality.
22. When none are used, at what rate does soil deterioration progress, indicated by loss in vigor or quality, as well as yield, both of tobacco and subsequent crops?
23. Has the yield per acre increased or decreased during the past ten years? If so, to what extent in either case?
24. What rotation, in connection with green manuring or other fertilizing, is best adapted to such soil recuperation?

SEED BED.

25. Soil and situation selected for seed bed.
26. Mode of preparation.
27. Usual date of sowing.
28. Usual date of transplanting.

CULTIVATION.

29. Preparation of soil for planting.
30. At what distance (each way) are plants set?
31. Mode and amount of cultivation.
32. Proper time for "priming," "topping," and "suckering," respectively. Give description of each operation as practiced by experienced growers.
33. Usual time between topping and cutting.
34. Usual time of cutting.

CURING.

35. What method is practiced? Please describe it.
36. What proportion is air-dried; what cured with artificial heat; with wood; with charcoal?
37. What new apparatus for curing is used, and with what results?
38. What damage has been done by pole sweating; how caused; how can it be prevented?
39. Mode of preparing for market.
40. What is the usual date or period of packing? From ..... to .....  
The usual period for selling or shipping? From ..... to .....
41. Range of prices for like varieties of tobacco, caused by different modes or varying skill in curing.  
Give examples fairly illustrative of such differences.

INSECTS AND DISEASES.

42. How prevalent is the disease known in the South as "firing" and in New England as "brown rust?"
43. What atmospheric conditions apparently favor its extension?
44. What has been successfully done for prevention or mitigation?
45. How can the injuries to seed beds by the fly be avoided?
46. What is the comparative severity of such injury in different years?
47. Describe the character and extent of injury by the cutworm.
48. How met or prevented?
49. Extent of injury by the green or hornworm.  
How is it destroyed—by hand picking; by turkeys; by other means?
50. What means are effective for destroying the moth that lays the eggs producing the tobacco worm?
51. Is the tobacco crop of your county liable to injury from hailstorms? How generally and to what extent does such injury occur?

VALUE OF THE CROP OF 1879.

52. What is your estimate of the average value per pound of the crop of your county?  
What the value per pound of different grades of product?

SUPPLEMENTAL TOBACCO SCHEDULE.

1. Does the tobacco grown from seed imported from Cuba resemble the Cuba tobacco in size, aroma, and body?
2. What processes are used in curing it?
3. When a crop is grown from seed matured in this country, does it deteriorate in aroma or in any respect from that grown from imported seed?

4. Do the varieties of tobacco mix when planted in juxtaposition, and have any valuable varieties been produced by hybridization?
5. Please give the geological formations of your best tobacco soils.
6. What is the character of the rocks that come to the surface?
7. Is the soil calcareous or siliceous, or both?
8. What is the character and color of the soil and subsoil?
9. Give also the usual depth of the soil.
10. In the preparation of the soil for tobacco, to what depth is it plowed, and when?
11. Is a turning plow, which reverses the soil, or a shovel plow, which does not, used in breaking?
12. Is subsoiling practiced, and with what effect?
13. How often is the soil plowed before planting?
14. Is the soil easy of tillage?
15. Is it warm or cold, wet or dry?
16. Is the soil tender and easily washed, or otherwise?
17. What proportion of land originally cultivated in tobacco is now exhausted and turned out as "old fields?"
18. Does the land regain its fertility after being turned out; if so, to what do you attribute it, and how long does it require for recuperation?
19. What growths usually occupy such "old fields?"
20. Are fertilizers applied to the hill or spread broadcast?
21. Is tobacco with proper rotation more exhaustive to the soil than cotton, or corn, or flax, or hemp, or other standard crops?
22. Give the native growth on the best soils for seed beds; the best exposure.
23. Is the ground for seed beds burned, and at what time?
24. If not burned, give the manner of preparing:
  - (a) By hotbeds.
  - (b) By using guano.
  - (c) Other means.
25. What effect does burning have on the soil?
26. Are the beds prepared and sowed immediately after burning, or are they burned in the fall and allowed to remain in this condition for winter freezes, with or without preparation for the seed?
27. Quantity of seed used on 100 square yards?
28. Usual date of transplanting, and size of plant when transplanted?
29. Does the size of the plant differ for old and new land?
30. To how late a date can transplanting be done so as to secure a crop before frost?
31. Do planters wait for a rain to moisten the soil before transplanting, or is it moistened by artificial means?
32. Are the plants set in hills, or drills?
33. How many to the acre?
34. How many days intervene between transplanting and topping?
35. How many leaves are usually left to the plant when topped?
36. How often is tobacco suckered before it ripens?
37. What length of time intervenes between topping and cutting?  
What are the variations in length of time on different soils?
38. In what respect do rains affect the quality of tobacco after it is ripe and before it is cut?
39. What effect have cool nights and heavy dews on maturing tobacco?
40. Give the indications of ripening.
41. Is the tobacco of your district better when partially or fully ripe?
42. Is the stalk split in cutting?
43. What instrument is used for cutting?
44. What time of day is preferred for cutting? and give the reason for such preference.
45. Are the plants strung upon sticks? If so, how many to a stick? Or are they tied to poles by twine? Or are the leaves stripped from the stalk and then cured? Describe the whole process.
46. What is the character of the tobacco houses—small or large, open or tight?
47. What is their maximum and minimum capacity?
48. Is tobacco scaffolded before being housed?
49. Describe scaffolds, and the length of time tobacco remains on them.
50. What process of curing makes the most salable tobacco?
51. What degree of heat is necessary to secure a walnut-colored leaf? A hickory-yellow? A nut-brown? A mahogany-brown? A piebald-green or yellow?  
Or do the making of these colors depend upon the soil and the climate?
52. Give the causes which militate against the production of any desired color.
53. How is the color fixed?

54. Is tobacco ever damaged after the process of curing is finished, while hanging in the barn? If so, to what extent and to what is this due?
55. How is tobacco managed after it is cured, before stripping?
56. When stripped, how many leaves are put into a bundle?
57. How many classes or grades are made in assorting?
58. After it is stripped, is it again hung up or bulked down?
59. How are the bulks made?
60. In what order or condition is it bulked—
  - (a) When sold loose?
  - (b) When to be prized?
61. Best condition of weather for such work, and best time of the year?
62. How long should it remain in bulk before it is prized into casks?
63. What benefits result from bulking?
64. What are the best months for prizing to prevent injury by "sweat" or fermentation?
65. Describe the kinds of prizes used.
66. The usual time for marketing tobacco.
67. What proportion of the crop is sold loose to dealers?
68. Name your principal markets.
69. Is it sold at auction or by sample?
70. What time does tobacco in your climate go into "sweat" or fermentation?
71. What effect does this sweat have upon its quality or condition?
72. Are artificial means, such as steam or warm air, employed in "ordering" tobacco? If so, does tobacco retain its sweetness and flavor to the same degree as when ordered by the natural humidity of the atmosphere?
73. What proportion of the crop marketed is "funked" or soured by excessive fermentation?
74. Give the size of the casks in which tobacco is marketed.
75. Give the usual number of pounds of each grade which are prized in a hoghead.
76. Size of box or bale used, and the number of pounds in each.

STRIPS.

77. What proportion of the crop in your district is made into strips for the European markets?
78. What description of tobacco is best suited for strips?
79. Describe the process of making strips.
80. What per cent of water will strips made from tobacco in your district absorb?
81. Are they dried for packing by the air or by artificial means? And if by artificial means, describe the apparatus employed.
82. Which is the safest and best process?
83. What per cent of the weight of the leaf is lost in stemming?
84. What per cent is lost in weight between the order in which it is received from the planter and the order in which it is prized and sent to market as strips?

DISEASES.

84. Name the relative proportions of "red fire," "black fire," and "white speck," and the causes and cure of each.
85. How prevalent is the disease known as "Frenching?" What causes it, and what is the remedy? What is its effect on the plant and on the quality of the tobacco?
86. Does the disease known as "walloon" prevail in your district? How is it prevented?
87. What induces "hollow stalk," and how is it prevented?

COST OF RAISING AND MARKETING.

88. What is the price of your best tobacco soils, and how many pounds do these soils produce per acre?
89. What is the price of inferior tobacco soils, and what is the yield per acre?
90. Give the rental value of each of these.
91. What rate of wages is paid for field workers in tobacco?
  - (a) By the year.
  - (b) By the day in summer.
92. Do tobacco laborers command higher wages than other field hands? If so, state the difference.
93. What rate of wages is paid for strippers?

## 278 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

94. What for packers and prizers?
95. What for stemmers?
96. What do you estimate to be the actual cost to produce 100 pounds of tobacco upon your best soils, giving proper credit for other crops grown on the farm? Give figures, if possible.
97. Upon the worst?
98. Is tobacco cultivated on the share system, and what proportion is given to the cropper?
99. What is the average number of acres planted to the hand?
100. Is the proportion of cost decreased in a large crop?
101. What is the cost of tobacco hogsheads or other packages used in marketing tobacco?
102. Cost to the planter for inspecting and selling?
103. What is the usual cost of tobacco houses and furniture, such as sticks, prizes, tables, etc.?
104. What proportion of such houses are annually destroyed by fire?
105. What method of firing is considered safest?
106. Do insurance companies take risks on tobacco houses?
107. Give any other information pertaining to the culture and curing of tobacco peculiar to your district and which the foregoing questions do not elicit, such as the price of charcoal where that is used for curing, and the quantity required to cure a given amount of tobacco; cost of flues, screws, and other appliances.

### CENSUS OF 1890.

#### GENERAL SCHEDULE No. 2.—STATISTICS OF AGRICULTURE.

- State; County; Post-office; Supervisor's district; Enumeration district. ...., Enumerator.
- Name of the person who conducts this farm.
- Color. (A)
- Tenure: (B)
- Owner.
- Rents for fixed money rental.
- Rents for share of products.
- Acres of land: (C)
- Total number of acres in farm.
- Improved:
- Tilled, including fallow and grass in rotation (whether pasture or meadow).
- Permanent meadows or pastures, cultivated forest, orchards, vineyards, nurseries, and market gardens.
- Unimproved:
- Natural woodland and forest.
- Other unimproved, including "old fields" not growing wood.
- Acres irrigated. (D)
- Number of artesian wells flowing.
- Farm values: (E)
- Of farm, including land, fences, and buildings.
- Of farming implements and machinery.
- Of live stock.
- Fences: Cost of building and repairing in 1889.
- Cost of fertilizers purchased in 1889.
- Labor:
- Amount paid for wages for farm labor during 1889, including value of board.
- Weeks of hired labor in 1889 upon farm (and dairy), excluding housework: (F)
- White.
- Colored.
- Estimated value of all farm productions (sold, consumed, or on hand) for 1889. (E)
- Forest products:
- Amount of wood cut in 1889—cords.
- Value of all forest products sold or consumed in 1889. (G H)
- Grass lands and forage crops:
- Wild, salt, or prairie grass harvested—1889:
- Acres. (K)
- Tons.

## Grass lands and forage crops—Continued.

English and other tame and cultivated grasses harvested—1889:

Acres. (K)

Tons.

Millet harvested—1889:

Acres. (K)

Tons.

Alfalfa harvested—1889:

Acres. (K)

Tons.

Other clovers harvested—1889:

Acres. (K)

Tons.

Other forage crops harvested—1889: (L)

Acres. (K)

Tons.

Total number of acres mown in 1889.

Hay of all kinds sold in 1889:

Tons.

Value. (G H)

Straw of all kinds sold in 1889:

Tons.

Value. (G H)

Clover seed produced in 1889—bushels.

Other grass seed produced in 1889—bushels.

Value of all grass and clover seed sold in 1889.

Silos:

Number.

Total capacity in tons.

## Sugar:

Cane—1889:

Area in crop—acres. (K)

Sugar produced—hogsheads.

Value. (G H)

Molasses produced—gallons.

Value. (G H)

Sorghum—1889:

Area in crop—acres. (K)

Sorghum cane raised and sold for sugar making—tons.

Value. (G H)

Molasses produced—gallons.

Value. (G H)

Maple—1889:

Sugar produced—pounds.

Value. (G H)

Molasses produced—gallons.

Value. (G H)

Beet—1889:

Area in sugar beets—acres. (K)

Beets raised and sold for sugar making—tons.

Value. (G H)

Castor beans—acres. (K)

## Cereals:

Barley—1889:

Area—acres. (K)

Crop—bushels.

Sold—bushels.

Value. (G H M)

Buckwheat—1889:

Area—acres. (K)

Crop—bushels.

Sold—bushels.

Value. (G H M)

Indian corn—1889:

Area—acres. (K)

Crop—bushels.

Sold—bushels.

Value. (G H M)

## Cereals—Continued.

## Oats—1889:

Area—acres. (K)

Crop—bushels.

Sold—bushels.

Value. (G H M)

## Rye—1889:

Area—acres. (K)

Crop—bushels.

Sold—bushels.

Value. (G H M)

## Wheat—1889:

Area—acres. (K)

Crop—bushels.

Sold—bushels.

Value. (G H M)

Corn used for fuel—bushels.

Corn used for feed—bushels.

Other cereals consumed or "fed" on the farm—bushels.

## Rice—1889:

Area—acres. (K)

Crop—pounds.

Value. (G H)

## Tobacco—1889:

Area—acres. (K)

Crop—pounds.

Sold—pounds.

Value. (G H M)

## Pease and beans—1889: (N)

Canada pease (dry)—bushels.

Cowpease—bushels.

Beans (dry)—bushels.

Value of pease and beans sold. (G H)

## Peanuts—1889:

Area—acres. (K)

Crop—bushels.

Value. (G H)

## Hops—1889:

Area—acres. (K)

Crop—pounds.

Sold—pounds.

Value. (G H M)

## Fiber:

## Cotton—1889:

Area—acres. (K)

Crop—bales.

Value. (G H)

Cotton seed:

Sold—bushels:

Value. (G H)

## Flax—1889:

Area—acres. (K)

Seed—bushels.

Straw—tons.

Fiber—pounds.

Total value of all flax products sold. (G H)

## Hemp—1889:

Area—acres. (K)

Crop—tons.

Sold—tons.

Value. (G H M)

## Broom corn—1889:

Area—acres. (K)

Crop—pounds.

Value. (G H)

## Horses, mules, and asses:

On hand June 1, 1890:

Horses.

Mules.

Asses.

Foaled in 1889:

Horses.

Mules.

Asses.

Sold in 1889:

Horses.

Mules.

Asses.

Died in 1889.

## Sheep:

On hand June 1, 1890:

Merino, "fine" wool (one-half to full blood).

English breeds, "long" or medium wool (one-half to full blood).

All other.

Lambs dropped in 1889.

"Spring lambs" sold for consumption in 1889.

Sold in 1889, other than "spring lambs."

Slaughtered for use on farm in 1889.

Killed by dogs in 1889.

Died in 1889 from disease and weather.

## Wool:

Shorn spring of 1890 and fall of 1889.

Fleeces. (I)

Weight—pounds.

## Goats:

Angora and grades above half blood.

Common and grades below half blood.

## Dogs:

On farm June 1, 1890.

## Neat cattle:

On hand June 1, 1890:

Working oxen.

Milch cows.

Other cattle.

Quality:

Pure bred (recorded).

Grade (one-half blood or higher).

Common or native (including grades less than half blood).

Calves dropped in 1889.

Sold in 1889, living and slaughtered.

Slaughtered in 1889 for consumption on farm.

Died in 1889.

## Dairy:

Milk:

Total milk produced on farm in 1889—gallons. (I)

Sold for consumption in families—gallons. (I)

Sent to creamery or factory—gallons. (I)

Used on farm, including for butter and cheese—gallons.

Used on farm in raising cream for sale, including for creamery or factory—gallons. (I)

Cream:

Sent to creamery or factory—quarts. (I)

Sold other than to creamery or factory—quarts. (I)

Butter:

Made on farm—1889—pounds. (I)

Sold—1889—pounds. (I)

Cheese:

Made on farm—1889—pounds. (I)

Sold—1889—pounds. (I)

## 282 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### Swine:

On hand June 1, 1890.  
Sold in 1889.  
Consumed on farm in 1889.  
Died in 1889.

### Poultry:

On hand June 1, 1890:  
Chickens.  
Turkeys.  
Geese.  
Ducks.  
Value of all poultry sold in 1889. (G H)  
Eggs produced in 1889.  
Eggs sold in 1889.  
Value of eggs sold in 1889. (G H)

### Bees:

Stands June 1, 1889.  
Honey produced in 1889—pounds. (I)  
Wax produced in 1889—pounds. (I)  
Value of honey and wax sold in 1889. (G H)

### Nurseries:

Acres. (K)  
Value of products sold in 1889. (G H)

### Onions:

Field crop—1889:  
Acres in field crop—1889. (K)  
Produced in 1889—bushels.  
Sold—1889:  
Sold in 1889—bushels.  
Value of crop sold in 1889. (G H)

### Potatoes:

Irish—1889:  
Acres. (K)  
Crop—bushels.  
Sold—bushels.  
Sweet—1889:  
Acres. (K)  
Crop—bushels.  
Sold—bushels.

### Market gardens and small fruits:

All vegetables except potatoes and onions—acres. (K)  
Blackberries—acres. (K)  
Cranberries—acres. (K)  
Raspberries—acres. (K)  
Strawberries—acres. (K)  
Other small fruits—acres. (K)  
Total value of products—1889. (G H)

### Vegetables and fruits for canning:

Beans and pease:  
Acres. (K)  
Crop—1889—bushels.  
Green corn:  
Acres. (K)  
Crop—1889—bushels.  
Tomatoes:  
Acres. (K)  
Crop—1889—bushels.  
Other vegetables:  
Acres. (K)  
Crop—1889—bushels.  
Fruits:  
Acres. (K)  
Crop—1889—bushels.

## Orchards:

## Apples:

Acres. (K)  
 Crop—1889—bushels.  
 Sold—1889—bushels.  
 Bearing trees.  
 Young trees not bearing.

## Apricots:

Acres. (K)  
 Crop—1889—bushels.  
 Sold—1889—bushels.  
 Bearing trees.  
 Young trees not bearing.

## Cherries:

Acres. (K)  
 Crop—1889—bushels.  
 Sold—1889—bushels.  
 Bearing trees.  
 Young trees not bearing.

## Peaches:

Acres. (K)  
 Crop—1889—bushels.  
 Sold—1889—bushels.  
 Bearing trees.  
 Young trees not bearing.

## Pears:

Acres. (K)  
 Crop—1889—bushels.  
 Bearing trees.  
 Young trees not bearing.

## Plums and prunes:

Acres. (K)  
 Crop—1889—bushels.  
 Bearing trees.  
 Young trees not bearing.

## Other orchard fruits:

Acres. (K)  
 Crop—1889—bushels.  
 Bearing trees.  
 Young trees not bearing.  
 Value of all orchard products—1889. (E G H)

## Vineyards:

Acres in vines: (K)  
 Bearing.  
 In young vines not bearing.  
 Total grape product—1889—pounds.  
 Grapes sold for table use—1889—pounds.  
 Grapes made into wine or sold for wine making—1889—pounds.  
 Raisins made—1889—pounds.  
 Total value of products—1889. (E G H)

## INSTRUCTIONS.

(Read carefully before writing answers in schedule.)

- A—Color: Write letters W or C in this column if occupant of farm is *white* or *colored*.  
 B—Tenure: Make an affirmative entry by a slanting line (/) in *one* of the three columns, according as the farm is owned, rented for fixed money value, or rented for share of products.  
 C—Improved land: All land once plowed is “improved” unless abandoned for cultivation. (See book.)  
 D—Acres irrigated: Means acres upon which water is conducted by artificial means.  
 E—Farm values: Means fair market values.  
 F—Weeks of hired labor. (See book.)  
 G—Values: Should be given in *dollars only*, cents or fractions of dollars being omitted.  
 H—Market value: Values given should be the prices at which sold, or the market value.

## 284 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

I—Small amounts: Do not omit small amounts of products; for instance, a farmer may make only two pounds of butter a week and think it too small an amount to return, but all such small amounts should be given.

K—Acreage: Where acres of any crop are required, plots less than *one-fourth* acre should *not* be counted. Parts of an acre between *one-fourth* of an acre and *one-half* acre should be counted as a *half* acre. Parts of an acre between *three-fourths* of an acre and *one* acre should be counted as *one* acre.

L—Other forage crops: Includes corn, cane, etc., cut and fed green, cured, or siloed.

M—Value: Here applies to amounts sold only.

N—Pease and beans: Does not include those grown in market gardens or on truck farms and sold green.

## SPECIAL SCHEDULES.

## AGRICULTURAL ORGANIZATIONS.

Supervisor's district; County; State.

Reported by .....; Post-office.

NOTE.—This should include *all* societies of farmers, such as agricultural societies, farmers' clubs, poultry, bees, horticulture, florists, county boards of agriculture, granges, alliances, protective, horse societies, etc.

Full name of organization.	Number of male members.	Number of female members.	Regular meetings each year.	Value of property owned by the organization.
(a)	(a)	(a)	(a)	(a)
Name of presiding officer.	Post-office address.	Name of secretary.	Post-office address.	
(a)	(a)	(a)	(a)	

a Several blank lines are printed in schedule.

## FLORISTS.

Reported by ....., of ....., County of ....., State of .....

Area, capital, labor, product, and distribution:

Date when established.

Acres or fractions of acres devoted to the business.

Square feet of glass in houses.

Value of implements.

Number of horses and other animals employed.

Total value of the establishment.

Number of men employed.

Number of women employed.

Average wages paid men per day.

Average wages paid women per day.

Days labor paid for in 1889.

Annual cost of fuel.

Number of roses annually grown.

Number of hardy plants annually grown.

Number of all other plants annually grown.

Total amount of plant sales in 1889.

Total amount of cut-flower sales in 1889.

Per cent of stock sold at wholesale.

Per cent of stock sold at retail.

Number of wholesale catalogues annually issued.

Number of retail catalogues annually issued.

Average annual amount paid for postage the past five years.

Average annual amount of advertising bills the past five years.

Average annual amount of freight bills the past five years.

Average annual amount of express bills the past five years.

Approximate annual amount of freight and express bills on outgoing shipments.

Commercial manures, successful plants, and methods of culture:

Are commercial manures used; if so, what, and with what results?

What plants are most successfully cultivated? Also give general information as to their culture.

Varieties in demand:

What varieties of plants are now most in demand?

What cut flowers are in most demand, and which the most profitable?

If the business is increasing or decreasing in any particular line, state to what extent, and apparent causes.

Diseases, insects, remedies, and general remarks:

What diseases, insects, or other pests are most troublesome?

Most approved remedies.

General remarks.

## IRRIGATION.

### SCHEDULE A.—LOCATION OF IRRIGATED AREAS; THE WATER SUPPLY, ITS COST AND USE; ARTESIAN WELLS, ETC.

Reported by ....., of ....., County of ....., State of .....

[In view of the increasing recognition of the importance of irrigation as the only method by which a large portion of the United States can ever be successfully brought under cultivation, it has been deemed advisable to ascertain, as precisely as possible, the extent to which irrigation is already practiced in this country, the peculiar conditions prevailing in different localities, and the success that has so far attended the application of this system of agriculture. The information thus obtained will be of great value in any future undertakings which the national or state government may enter upon for improving the water supply of your district, and may be of direct advantage to yourself as well as to the community in which you live. The co-operation of all irrigators is solicited, and this office feels assured that they will respond promptly and considerably, even though it should trespass somewhat upon their time and patience.]

#### Location and water supply:

1. Please give the number of acres and location of your irrigated land, if possible, by township, range, and section; or, if you do not know these, by the distance and direction from some town or well-known landmark.
2. What is the name of the canal or ditch from which you take water?
3. Is this canal or ditch owned by a corporation, by an association, by a partnership of neighboring farmers, or by one person?
4. Give name and address of superintendent, water master, or principal officer or owner of the canal or ditch.
5. From what river, creek, stream, or spring does this canal or ditch take water?

#### Character of water supply:

6. What is the character of this river or stream?
  - (a) Does it flow continuously throughout the year, or is it dry at times?
  - (b) Is it fed by melting snow and springs or by local rains?
  - (c) Are there sudden and violent floods, or is there a gradual rise in the spring of the year?
7. Do you have an ample supply of water, or have you lost crops on irrigated land for want of water?
8. Has any attempt been made to increase the supply by storage reservoirs?
9. Does the supply vary greatly from year to year? If so, how did the water supply of 1889 compare with that of other years, notably that of 1888 and 1890? Was it less or more?

#### Cost of irrigation:

10. Do you own a perpetual water right, subject to annual tax or assessment? If so, what was the original cost per acre of your water right, and what is it now worth?
11. Can you transfer this water right without transferring your land?
12. What is the tax or assessment per acre each year for water, or for keeping the canal or ditch in repair?
13. What do you estimate is the cost per acre of bringing your land under cultivation by irrigation, beyond the cost of water right—this to include plowing, grubbing sagebrush, fencing, and preparing the ground for irrigation?

## Use of water:

14. In the spaces below please write the dates on which irrigation usually begins and ends for each kind of crop; also, the number of waterings customary, and the number of hours required to water an acre.

	Irrigation begins.	Irrigation ends.	Number of waterings.	Time re- quired to water one acre.
For lucern or alfalfa.....				
[How many cuttings per year? ———.]				
For other hay-making plants or grasses.....				
For small grains (as wheat, oats, etc.) .....				
For corn and potatoes.....				
For orchards, vineyards, and shade trees .....				
For other crops (give names of other crops raised) ...				

15. How is the water applied to the land; by flooding, by furrows, by sub-surface irrigation, or by what other means?
16. Do you irrigate any wild or prairie grass for grazing or pasturage only? If so, how many acres?
17. Necessity of irrigation:  
Do you raise any crops or cultivate orchards, vineyards, or shade trees without irrigation, or without seepage water from a neighboring ditch? If so, what are these?
18. Is the growth or yield by "dry farming" as good as on irrigated land?
19. Do you raise more than one crop per year of any kind? If so, of what and how many cuttings or harvests?
20. In order to cultivate all the arable land and to prevent loss of crops, is it necessary to practice irrigation and construct more complete systems of canals and ditches?
21. In the spaces below please state the number of acres cultivated by irrigation, also cultivated without irrigation and beyond the reach of seepage water from canals near the land.

Kind of crop.	Acres irri- gated, 1889.	Acres not irri- gated or wet by seepage, 1889.
Alfalfa or lucern.....		
Other hay plants or grasses.....		
Barley, corn, oats, rye, wheat, etc.....		
Small fruits and vegetables.....		
Orchards and vineyards.....		
Total.....		

## Artesian wells and pumps:

22. Have you on your place any artesian wells, that is, bored or driven wells, which flow continuously without pumping? If so, how many?
23. What is the depth and size of pipe?
24. What is the average flow per minute or per day?
25. Is any of the water used for irrigation? If so, how many acres are irrigated, and what crops are raised by the use of artesian water?
26. What was the total cost of well, and when was it sunk?
27. Has the flow diminished or increased?
28. Have other wells near by influenced the flow?
29. Do you lift water for irrigation by any mechanical means, as by pumps driven by wind, steam, or horse-power, by norias or Persian wheels, by buckets raised by running water, or by any other process?

## General remarks:

30. Remarks on the general condition of irrigation in your locality, giving description of favorable or unfavorable surroundings; on the necessity of practicing irrigation or of improving the water supply or the system of ditches, or on any loss of crops by failure of water, etc.

## SCHEDULE B.—IRRIGATION CANALS AND DITCHES.

Reported by ....., of ....., County of ....., State of .....

## Location of canal:

1. What is the name of your canal or ditch?
2. From what river, creek, or spring does it obtain water?
3. What is the character of this river or stream?
  - (a) Does it flow continuously throughout the year, or is it dry at times?
  - (b) Is it fed by melting snow and springs in high mountains, or does it depend upon local rains?
  - (c) Are there sudden floods, or is there a gradual rise in the spring of the year?
4. In what township, range, and section is the head of your canal? If you do not know the number of the section, please describe the location by the number of miles from some town or some well-known point or landmark.
5. On which side of the river does it run, and, after leaving the river, through what sections does it go, in what general direction, and in what sections does it finally end? If possible, please make on the sectionalized plat (a) on the next page a sketch of the general location of your canal, or, in the case of a large canal, send, if convenient, a tracing or blue print.

(Any maps loaned for the purpose of showing the location of canals will be carefully handled and returned in the shortest possible time.)

## Size and cost:

6. What is the total length of the main ditch, in miles? Average width, in feet? Average depth of water, in feet? Depth when running full, in feet? Average velocity of water, in feet, per minute or second?
7. What was the total cost of your canal and system of ditches?
8. When was the canal begun? When finished? In what year was it first used?
9. Please describe the canal or ditch, from the headworks down, in the following order:
  - (a) The headworks, especially the kind of dam in the stream; whether tight on a wing-dam, or of brush and stones, wood, or masonry, and whether replaced every year or permanent.
  - (b) The upper section, giving the distance from the headworks down to the place where water is first used or the beginning of the irrigated land.
  - (c) The rock or earth cuttings in this course, and the number and length of flumes, etc.
  - (d) The number of smaller branches or distributaries, and average size and length.
  - (e) Method of taking water from the main ditch: by weirs, flumes, boxes, etc.

## Ownership and distribution of water:

10. Do you measure the water in your ditches? If so, by what method: by weirs, boxes, flumes, orifices, or otherwise?
11. What is your system of dividing the water to users?
12. Is the canal or ditch owned by a corporation, association, or by private parties?
13. How is the ownership divided? If in shares, do these shares entitle the holder to so much water; and, if so, how much, and for how many acres?

## Cost of irrigation:

14. What is the value or cost of water right per acre?
15. What is the annual assessment or tax per acre for water or for cleaning and repairing canal and ditches?
16. Can this be worked out by the farmers? If so, at what rate per day?
17. What do you estimate is the cost per acre to the farmer of preparing his land for cultivation by irrigation, including cost of plowing, grubbing sagebrush, fencing, and making smaller distributing ditches or furrows (this is not to include cost of water right or annual assessment)?

## Acreage and water supply:

18. On how many acres of land using water from your canal or ditch were crops raised by irrigation in 1889?
19. Is this a fair average of the acreage irrigated by water from your canal or ditch? If not, is this because your ditch was incomplete, the water supply unusually short, or because of some accident?

## 288 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### Acreage and water supply—Continued.

20. Does your ditch or canal usually furnish water sufficient for all land which it is intended to irrigate? If not, is this due to the small size or carrying capacity of the canal or ditches, to the insufficient amount of water in the river, or to the use of river water by other canals having rights to it?
21. During what months is the need of water greatest?
22. What are the principal kinds of crops irrigated (state, if you can, the approximate acreage of each)?
23. Is the water used to any extent on wild or prairie grass for pasturage only?
24. At what date is water usually turned into the canal? At what date shut off?
25. Is it necessary to clean out the sediment with any regularity? If so, at what times?

### Water supply:

26. Have you made any estimate as to the amount of water used or required by each or any crop? If so, what are your conclusions? (In regard to the quantity of water used in irrigation, in view of the great difficulty of estimating it, direct questions on the point have in general been avoided. Any information, however, that you may be able to give in regard to this matter will be greatly esteemed. In all official reports quantities of flowing water will be given in cubic feet per second, or, as more generally termed, in second-feet. The miners' inch has been found to vary so greatly in different parts of the country that a person must know in what manner it is measured in order to determine what is meant. In California it is usual to estimate that 50 miners' inches make a second-foot, while in Colorado the miners' inch is a larger quantity, 38.4 equaling a second-foot. If, therefore, you make any statement of the number of miners' inches used or carried by your canal, will you kindly describe how you measure these, and under what head and through what size of opening?)

### General remarks:

27. General remarks on irrigation and water supply in your vicinity.

## SCHEDULE C.—IRRIGATION.

[Circular.]

In looking over the list of irrigators in your county it is noted that you are reported as having a very large acreage under irrigation, an amount in fact so much larger than the average that attention has been called to the matter, and the question is asked whether or not this statement may be due to some error of the clerk or enumerator, and if right, what kind of crops are raised. Will you therefore kindly answer the questions in the spaces below and return this sheet to me as soon as possible in the inclosed envelope, which requires no postage. The office is endeavoring to make its statistics accurate and reliable, and would therefore ask your aid in making clear this one point.

1. How many acres of cultivable farm land have you under ditch or to which water has been brought by ditch or canal?
2. On how many acres of your land was water actually used and crops raised by irrigation in 1889?
3. What were the principal crops raised by irrigation on your farm, and about how many acres of each kind?
4. If you irrigate for pasturage, how many acres were watered for grazing only?

## SCHEDULE D.—IRRIGATION.

[Circular.]

The census enumerator of the district in which you resided in June last, reported you as having an artesian well on your farm. The instructions given to the enumerator did not make it his duty to make further inquiries concerning this important subject, it being considered that that could be done more satisfactorily by direct correspondence from this office.

The inquiry relates mainly to the flow of water and the success which has attended its utilization for the purpose of irrigation, and you will confer a favor upon this office by answering the subjoined questions as fully and accurately as you can.

From many portions of the West urgent requests have been received for information as to the average cost and general utility of artesian wells, and the results of *your experience may thus become of public service.* If your well has not been suc-

cessful in reaching good water or obtaining it in paying quantities, please mention these facts, as they may be of equal and even greater importance than the successes of others.

If, after answering the questions, any other important facts should occur to you, please note them on the back of this sheet.

1. What is the depth of your well in feet? What is the size of the pipe in inches? What was the cost of the well?
2. Have you measured the water from your well? If so, how many gallons per minute flow from it?
3. How was this measurement made, or, in other words, how accurate do you consider it?
4. Has any of this water been used for irrigation? If so, how many acres have been watered in any one season?
5. What crops have been raised by the water from your well, and about how many acres of each?

## LIVE STOCK NOT ON FARMS.

Reported by ..... Post-office; County; State; City; Ward; Village; Borough; Township.

[Include all live stock not upon farms of three acres or more June 1, 1890, such as horses and mules owned or used by street-car lines, livery-stable keepers, hackmen, coach, omnibus, or carriage drivers, manufacturers, storekeepers, teamsters, expressmen or express companies; also by doctors, other professional men, private families, etc.; cows kept in city or village dairies or by private families, and all other live stock not on farms, including swine, dogs, sheep, poultry, goats, and stands of bees.]

Name of individual, business firm, or corporation.	Live stock not on farms (number of).										
	Horses.	Mules.	Asses.	Neat cattle.						Swine.	Dogs.
				Working oxen.	Milch cows.	Other cattle.	Pure bred (recorded).	Grades (one-half blood or higher).	Common or native (including grades less than half blood).		
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)

Name of individual, business firm, or corporation.	Live stock not on farms (number of).									
	Sheep.			Poultry.				Goats.		Stands of bees.
	Merino (fine wool), one-half to full blood.	English breeds (long or medium wool), one-half to full blood.	All other.	Chickens.	Turkeys.	Geese.	Ducks.	Angora and grades above half blood.	Common and grades below half blood.	
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

## LIVE STOCK ON RANGES.

Reported by ..... Post-office .....; State .....; Range district No. ....  
Signature: (Special agent in charge of range district.)

Post-office; state.

[This schedule should include *only* live stock on ranges, and *not* stock upon farms or ranches, which has or will be taken by the regular census enumerators. Great

care should be exercised in this matter by special agents in charge of this work. Some herds of cattle are a part of the year on farms or ranches and at other times on the ranges. If the owners have them taken as "on farms or ranches" it would be a duplication of numbers if taken on this schedule also, which is intended to reach *only* stock outside of the regular farming or settled portions of the country. As far as possible live stock should be taken on this schedule according to their location in the month of June, 1890.]

Name of individual, business firm, or corporation.	Neat cattle.						Swine.
	Cows and calves.	Dry cows.	Other cattle.				
			Yearlings.	Two-year olds.	Three-year olds.	Four-year olds.	
	No.	No.	No.	No.	No.	No.	No.
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)

Name of individual, business firm, or corporation.	Horses.	Mules.	Asses and "burros."	Sheep.	Wool. Clip of fall 1889 and spring 1890.	Men employed (herders, etc.).
	No.	No.	No.	No.	Pounds.	No.
(a)	(a)	(a)	(a)	(a)	(a)	(a)

Name of individual, business firm, or corporation.	Died in 1889. All stock and from all causes.	Value of all cattle sold in 1889.	Value of horses sold in 1889.	Value of sheep sold in 1889.	Value of swine sold in 1889.
	No.	Dollars.	Dollars.	Dollars.	Dollars.
(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

Remarks.

#### NURSERIES.

Reported by ....., of ....., County of ....., State of .....

Area, value, capital, labor, implements, and manures:

Date when established.

Number of acres in nursery.

Value of land per acre.

Feet of glass in propagating houses.

Value of propagating houses.

Total value of nursery.

Value of implements.

Number of horses and other animals employed.

Value of horses and other animals.

Total amount of capital invested in the business.

Average annual amount paid for taxes past ten years.

Number of men employed.

Number of women employed.

Average wages paid men per day.

Average wages paid women per day.

Number of days labor paid for in 1889.

Value of stable manure applied per acre.

Total value of stable manure applied in 1885.

Total value of stable manure applied in 1886.

Value of commercial fertilizers applied per acre.

Total value of commercial fertilizers applied in 1885.

Total value of commercial fertilizers applied in 1886.

Total value of commercial fertilizers applied in 1887.

Total value of commercial fertilizers applied in 1888.

Total value of commercial fertilizers applied in 1889.

## Soils and general preparation:

What is the general character of the soil?

What is the general plan of preparation of the soil for planting?

## Manures—stable and commercial:

Where stable manure is used, what is the manner of its preparation and application to the various nursery products?

What commercial manures are most satisfactory, how applied, and in what quantity per acre; also, cost per ton?

## Irrigation and propagation:

Is irrigation practiced; if so, how, and with what results?

General remarks regarding propagation.

## Acreage, quantity, quality, and cost of production:

Kind.	Number grown per acre.	Number of acres 1-year trees or plants.	Approximate cost of production per 100.	Average whole-sale price per 100.	Per cent of No. 1 grade yearling trees or plants.	Per cent of No. 2 grade yearling trees or plants.	Per cent of No. 3 grade yearling trees or plants.	Number of acres 2-year trees or plants.	Approximate cost of production per 100.	Average whole-sale price per 100.
Apple .....										
Apricot .....										
Cherry .....										
Fig .....										
Lemon .....										
Lime .....										
Nectarine .....										
Olive .....										
Orange .....										
Peach .....										
Pear .....										
Plum .....										
Pomalo .....										
Quince .....										
Other fruit trees .....										
Nut trees .....										
Deciduous trees .....										
Evergreens .....										
Hardy shrubs .....										
Roses .....										
Grapevines .....										
Strawberries .....										
Raspberries .....										
Blackberries .....										
Currents .....										
Gooseberries .....										

Kind.	Per cent of No. 1 grade 2-year trees or plants.	Per cent of No. 2 grade 2-year trees or plants.	Per cent of No. 3 grade 2-year trees or plants.	Number of acres 3-year trees or over.	Per cent of No. 1 grade 3-year trees or over.	Per cent of No. 2 grade 3-year trees or over.
Apple .....						
Apricot .....						
Cherry .....						
Fig .....						
Lemon .....						
Lime .....						
Nectarine .....						
Olive .....						
Orange .....						
Peach .....						
Pear .....						
Plum .....						
Pomalo .....						
Quince .....						
Other fruit trees .....						
Nut trees .....						
Deciduous trees .....						
Evergreens .....						
Hardy shrubs .....						
Roses .....						
Grapevines .....						
Strawberries .....						
Raspberries .....						
Blackberries .....						
Currents .....						
Gooseberries .....						

# 292 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Acreage,,quantity, quality, and cost of production—Continued.

Kind.	Per cent of No. 3 grade 3-year trees or over.	Per cent of increased production since 1885.	Per cent of decreased production since 1885.	Per cent of increased price on each since 1885.	Per cent of decreased price on each since 1885.
Apple .....					
Apricot .....					
Cherry .....					
Fig .....					
Lemon .....					
Lime .....					
Nectarine .....					
Olive .....					
Orange .....					
Peach .....					
Pear .....					
Plum .....					
Pomalo .....					
Quince .....					
Other fruit trees .....					
Nut trees .....					
Deciduous trees .....					
Evergreens .....					
Hardy shrubs .....					
Roses .....					
Grapevines .....					
Strawberries .....					
Raspberries .....					
Blackberries .....					
Currants .....					
Gooseberries .....					

Distribution of stock and varieties in demand:

Kind.	Section of country where stock was most largely disposed of from 1880 to 1885.	Section of country where stock was most largely disposed of from 1885 to 1890.	Standard varieties in most demand in 1885.			New varieties in most demand in 1885.	
			First choice.	Second choice.	Third choice.	First choice.	Second choice.
Apple .....							
Apricot .....							
Cherry .....							
Fig .....							
Lemon .....							
Lime .....							
Nectarine .....							
Olive .....							
Orange .....							
Peach .....							
Pear .....							
Plum .....							
Pomalo .....							
Quince .....							
Other fruit trees .....							
Nut trees .....							
Deciduous trees .....							
Evergreens .....							
Hardy shrubs .....							
Roses .....							
Grapevines .....							
Strawberries .....							
Raspberries .....							
Blackberries .....							
Currants .....							
Gooseberries .....							

Varieties most in demand and varieties being propagated:

Kind.	Standard varieties in most demand in 1889.			New varieties in most demand in 1889.			Standard varieties now being propagated most largely.	New varieties being propagated most largely.
	First choice.	Second choice.	Third choice.	First choice.	Second choice.	Third choice.		
Apple .....								
Apricot .....								
Cherry .....								
Fig .....								
Lemon .....								
Lime .....								
Nectarine .....								
Olive .....								
Orange .....								
Peach .....								
Pear .....								
Plum .....								
Pomalo .....								
Quince .....								
Other fruit trees .....								
Nut trees .....								
Deciduous trees .....								
Evergreens .....								
Hardy shrubs .....								
Roses .....								
Grapevines .....								
Strawberries .....								
Raspberries .....								
Blackberries .....								
Currants .....								
Gooseberries .....								

Salesmen, expenses of distribution, and insect pests:

Number of salesmen employed.

Average monthly wages of salesmen.

Total annual amount paid salesmen.

Number of wholesale catalogues issued in 1889.

Number of retail catalogues issued in 1889.

Amount paid for newspaper advertising in 1889.

Amount paid for postage in 1889.

Amount of freight bills in 1889.

Amount of express bills in 1889.

Approximate amount of freight and express bills on outgoing shipments in 1889.

Year.	Per cent of stock sold at whole-sale.	Total value of stock sold at whole-sale.	Per cent of stock sold at retail.	Total value of stock sold at retail.	Year.	Per cent of stock sold at whole-sale.	Total value of stock sold at whole-sale.	Per cent of stock sold at retail.	Total value of stock sold at retail.
1880 .....					1885 .....				
1881 .....					1886 .....				
1882 .....					1887 .....				
1883 .....					1888 .....				
1884 .....					1889 .....				

What diseases or insect pests are most troublesome in nursery?

Remedies and general remarks:

Remedies tested, and those most satisfactory.

General remarks.

#### SEED FARMS.

Reported by ....., of ....., County of ....., State of .....

Area, labor, manures, products, and general expenses:

Date when established as a seed farm.

Number of acres in farm.

Value of land per acre.

Number of men employed.

Average wages paid men per day.

Number of women employed.

Average wages paid women per day.

Number of days wages paid for per year.

Number of horses or other animals employed.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Area, labor, manures, products, and general expenses—Continued.

Value of implements used.

Total value of the farm, buildings, animals, implements, etc.

Average cost per acre of manures or fertilizers applied.

Acres of plants or vegetables growing for seed stocks.

**Total acreage of garden seeds growing.**

**Total acreage of flower seeds growing.**

**Total acreage of field seeds growing.**

Number of acres of plants or vegetables being grown for you by others.

Number of acres in seeds being grown for you by others.

**Amount and value of stock exported by you annually.**

**Amount and value of stock imported by you annually.**

Number of catalogues annually issued.

Annual amount paid for postage.

Annual amount of advertising bills.

Annual amount of freight bills.

Annual amount of express bills.

Approximate amount of annual freight and express bills on outgoing shipments.

**Varieties, planting stock, yields, selling price, and production:**

[illegible]

Varieties, planting stock, yields, selling price, and production—Continued.

What variety of seeds succeed best?

What are the most uncertain and unreliable?

How are seeds mostly sold, to the trade or direct to planters?

Diseases, insects, special manures, foreign importations, and general remarks:

What diseases or insect pests are most troublesome?

What special manures are used, and with what results on special crops?

Does the importation of any foreign-grown stock affect your business unfavorably?

General remarks.

### TOBACCO.

Reported by ....., of ....., County of ....., State of .....

Varieties of tobacco:

1. What varieties of tobacco are cultivated in your district?
2. Your first choice and second choice, and why?
3. If any new varieties have been successfully introduced since 1880, please name them, and state their merits.
4. If any of the old varieties have been abandoned, please name them, and state the reason.
5. What varieties are regarded as most reliable, and what as most profitable?
6. What class, type, and grade of tobacco do you seek to produce?  
[Class—Smoking, chewing, exporting. Type—Yellow, red, dark, etc., Grade—Wrappers, fillers, cutters, etc.]
7. Has the quality of the product improved since 1880?
8. Further remarks on varieties of tobacco.

Climate:

9. Character of your climate, particularly in spring, summer, and fall.
10. Prevailing winds.
11. Any protracted droughts.
12. Early frosts.

Character of soil:

13. What is the character of the soil you cultivate in tobacco?
14. How long under cultivation in tobacco; its present condition and yield?
15. If any newly cleared land is in tobacco, how much, and how does it compare in yield and quality with the old?
16. General remarks on soil.

Comparisons in areas:

17. What proportion of your farm is planted in tobacco in comparison with wheat and corn?
18. Has the tendency in your district been toward an increase or a decrease in the acreage of tobacco?
19. Do large, medium, or small areas in tobacco pay best, and why?
20. What "rotation," if any, is followed by the planters of your locality?

Cost of production in your district:

21. What number of acres of tobacco can be successfully cultivated and housed by one trained man?
22. What wages are paid to such a man per month?
23. What rent is paid per acre for the land?
24. What is the average yield per acre in pounds?
25. Average price per pound?
26. Annual cost of fertilizers per acre?
27. Annual cost of cultivating per acre?
28. Annual cost of handling crop per acre?
29. What profit is expected and usually received by the landlord on each acre?
30. What is the cost of cultivating, handling, etc., one acre of tobacco from the making of the seed-bed to the delivery of the crop at the nearest market?
31. Is a "share system" practiced in your locality toward tenants and laborers? If so, give the terms.
32. What is the range of prices per hundred pounds from "lugs" to your best product?
33. What is the cost to the planter of inspecting and selling in the distant market?
34. General remarks on cost of production.

Fertilizers—Barns:

35. If you use fertilizers, please state why, what kind, quantity per acre, how applied, and cost per ton.
36. If you use barnyard manure, please state quantity per acre, cost per acre, how applied, increased yield made, etc.
37. If you use both, please give relative merits and reasons therefor.

## 296 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Fertilizers—barns—Continued.

38. If any improvements have been made in construction of tobacco barns since 1880, please state them.
- Curing:
  39. If any improvements have been made in curing tobacco since 1880, please state them.
  40. Have "patented methods" of curing tobacco been more largely introduced, or are the old methods adhered to and preferred?
  41. General remarks on curing:
    - (a) What process makes the most salable tobacco?
    - (b) What causes militate against the production of any desired color?
- Cost of transportation:
  42. Do you ship your tobacco to the nearest tobacco market? If not, why not?
  43. Do you ship by rail or water?
  44. How is your crop sold?
  45. Cost per 100 pounds of transportation.
  46. Aggregate cost per 100 pounds from plantation to warehouse or to commission merchant.
- Transportation—diseases—accidents, etc.:
  47. Remarks on transportation.
  48. What diseases or insects are most hurtful to tobacco in your district?
  49. What remedies do you use?
  50. To what extent has your crop been injured by storms or fire during the last ten years?
- General remarks—accidents, etc.:
  51. General remarks on insects, diseases, or accidents.
- Importation—exportation:
  52. Does the importation of any foreign tobacco affect the tobacco growers of your district? If so, how?
  53. Any remarks on the export trade.
  54. Was the tobacco crop of 1889 an average crop? If not, why not?
  55. What has been the percentage of loss, if any, in your district?
- General remarks:
  56. Remarks on the present condition of the tobacco market.

### TROPIC AND SEMI-TROPIC FRUITS AND NUTS.

Reported by ....., of ....., County of ....., State of .....

Orchard area, unoccupied lands, trees and their cost, fertilizers, and cultivation:

[Inquiries 1a to 15a, inclusive, and 59a and 60a are to be answered from your general information of the business in your section. Inquiries 16b to 58b, inclusive, relate to your own personal business.]

Inquiries.	Al- mond.	Ba- nana.	Brazil nut.	Cit- ron.	Cocoa- nut.	Date.	Fig.
1a. Estimated acres in township planted in each.							
2a. Estimated acres in county planted in each....							
3a. Estimated acres in township suitable for planting in each.....							
4a. Estimated acres in county suitable for plant- ing in each.....							
5a. Average value per acre of suitable land not yet planted.....							
6a. Estimated cost of clearing land suitable for planting.....							
7a. Number of trees recommended to be planted per acre.....							
8a. Cost of trees per 100.....							
9a. Most approved fertilizer and cost per ton.....							
10a. Amount of fertilizer applied per acre at time of planting.....							
11a. Total cost of planting per acre.....							
12a. Total cost of care and cultivation first year....							
13a. Average annual cost of cultivation per acre for first 5 years.....							
14a. Average annual cost of cultivation per acre for first 10 years.....							
15a. Average annual cost of fertilizers per acre for first 10 years.....							
16b. Number of trees in nursery row.....							
17b. Acres in 1-year trees.....							
18b. Acres in 2-year trees.....							
19b. Acres in 3-year trees.....							
20b. Acres in 4-year trees.....							

Orchard area, unoccupied lands, trees and their cost, fertilizers, and cultivation—C't'd.

Inquiries.	Filbert.	Guava.	Kaki (Japan persim- mon).	Lemon.	Lime.	Madeira nut (Englan walnut).
1a. Estimated acres in township planted in each.						
2a. Estimated acres in county planted in each...						
3a. Estimated acres in township suitable for planting in each.....						
4a. Estimated acres in county suitable for plant- ing in each.....						
5a. Average value per acre of suitable land not yet planted.....						
6a. Estimated cost of clearing land suitable for planting.....						
7a. Number of trees recommended to be planted per acre.....						
8a. Cost of trees per 100.....						
9a. Most approved fertilizer and cost per ton.....						
10a. Amount of fertilizer applied per acre at time of planting.....						
11a. Total cost of planting per acre.....						
12a. Total cost of care and cultivation first year...						
13a. Average annual cost of cultivation per acre for first 5 years.....						
14a. Average annual cost of cultivation per acre for first 10 years.....						
15a. Average annual cost of fertilizers per acre for first 10 years.....						
16b. Number of trees in nursery row.....						
17b. Acres in 1-year trees.....						
18b. Acres in 2-year trees.....						
19b. Acres in 3-year trees.....						
20b. Acres in 4-year trees.....						

Inquiries.	Olive.	Orange.	Pine- apple.	Pomolo (grape fruit).	Pome- gran- ate.	Pecan.
1a. Estimated acres in township planted in each.						
2a. Estimated acres in county planted in each...						
3a. Estimated acres in township suitable for planting in each.....						
4a. Estimated acres in county suitable for plant- ing in each.....						
5a. Average value per acre of suitable land not yet planted.....						
6a. Estimated cost of clearing land suitable for planting.....						
7a. Number of trees recommended to be planted per acre.....						
8a. Cost of trees per 100.....						
9a. Most approved fertilizer and cost per ton.....						
10a. Amount of fertilizer applied per acre at time of planting.....						
11a. Total cost of planting per acre.....						
12a. Total cost of care and cultivation first year...						
13a. Average annual cost of cultivation per acre for first 5 years.....						
14a. Average annual cost of cultivation per acre for first 10 years.....						
15a. Average annual cost of fertilizers per acre for first 10 years.....						
16b. Number of trees in nursery row.....						
17b. Acres in 1-year trees.....						
18b. Acres in 2-year trees.....						
19b. Acres in 3-year trees.....						
20b. Acres in 4-year trees.....						

## 298 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Trees in nursery, young orchards, bearing trees, and orchard values:

Inquiries.	Almond.	Banana.	Brazil nut.	Citron.	Cocconut.	Date.	Fig.
21b. Acres in 5-year trees .....							
22b. Acres in trees of all other ages not yet in full bearing .....							
23b. Acres in trees of full-bearing age .....							
24b. Estimated value per acre of 1-year trees, including land .....							
25b. Estimated value per acre of 2-year trees, including land .....							
26b. Estimated value per acre of 3-year trees, including land .....							
27b. Estimated value per acre of 4-year trees, including land .....							
28b. Estimated value per acre of 5-year trees, including land .....							
29b. Estimated value of all other trees not bearing, including land .....							
30b. Estimated value of trees of full-bearing age, including land .....							
31b. Average yield per acre, in pounds .....							
32b. Average yield per acre, in bushels .....							
33b. Average yield per acre, in boxes .....							
34b. Average yield per acre, in barrels .....							
35b. Average number produced per acre, when sold by count .....							
36b. Average selling price in orchard, per pound .....							
37b. Average selling price in orchard, per bushel .....							
38b. Average selling price in orchard, per box .....							
39b. Average selling price in orchard, per barrel .....							
40b. Average selling price in orchard per 100, when sold by count .....							

Inquiries.	Filbert.	Guava.	Kaki (Japan persimmon).	Lemon.	Lime.	Madeira nut (English walnut).
21b. Acres in 5-year trees .....						
22b. Acres in trees of all other ages not yet in full bearing .....						
23b. Acres in trees of full-bearing age .....						
24b. Estimated value per acre of 1-year trees, including land .....						
25b. Estimated value per acre of 2-year trees, including land .....						
26b. Estimated value per acre of 3-year trees, including land .....						
27b. Estimated value per acre of 4-year trees, including land .....						
28b. Estimated value per acre of 5-year trees, including land .....						
29b. Estimated value of all other trees not bearing, including land .....						
30b. Estimated value of trees of full-bearing age, including land .....						
31b. Average yield per acre, in pounds .....						
32b. Average yield per acre, in bushels .....						
33b. Average yield per acre, in boxes .....						
34b. Average yield per acre, in barrels .....						
35b. Average number produced per acre, when sold by count .....						
36b. Average selling price in orchard, per pound .....						
37b. Average selling price in orchard, per bushel .....						
38b. Average selling price in orchard, per box .....						
39b. Average selling price in orchard, per barrel .....						
40b. Average selling price in orchard per 100, when sold by count .....						

## Trees in nursery, young orchards, bearing trees, and orchard values—Continued.

Inquiries.	Olive.	Or- ange.	Pine- apple.	Pomolo (grape fruit).	Pome- gran- ate.	Pecan.
21b. Acres in 5-year trees .....						
22b. Acres in trees of all other ages not yet in full bearing.....						
23b. Acres in trees of full-bearing age.....						
24b. Estimated value per acre of 1-year trees, including land.....						
25b. Estimated value per acre of 2-year trees, including land.....						
26b. Estimated value per acre of 3-year trees, including land.....						
27b. Estimated value per acre of 4-year trees, including land.....						
28b. Estimated value per acre of 5-year trees, including land.....						
29b. Estimated value of all other trees not bearing, including land.....						
30b. Estimated value of trees of full-bearing age, including land.....						
31b. Average yield per acre, in pounds.....						
32b. Average yield per acre, in bushels.....						
33b. Average yield per acre, in boxes.....						
34b. Average yield per acre, in barrels.....						
35b. Average number produced per acre, when sold by count.....						
36b. Average selling price in orchard, per pound ..						
37b. Average selling price in orchard, per bushel ..						
38b. Average selling price in orchard, per box ....						
39b. Average selling price in orchard, per barrel ..						
40b. Average selling price in orchard per 100, when sold by count.....						

## Markets, expenses of marketing, selling price of products, income, varieties, and increased planting:

Inquiries.	Al- mond.	Ba- nana.	Brazil nut.	Cit- ron.	Cocoa- nut.	Date.	Fig.
41b. Average selling price in market, per pound...							
42b. Average selling price in market, per bushel...							
43b. Average selling price in market, per box .....							
44b. Average selling price in market, per barrel ..							
45b. Average selling price in market per 100, when sold by count .....							
46b. Best markets .....							
47b. Cost of transportation .....							
48b. Commissions paid for selling .....							
49b. Total per cent cost of transportation and marketing .....							
50b. Cost of shipping packages, per acre .....							
51b. All other expenses of marketing, per acre ....							
52b. Average net income per acre in 1888 .....							
53b. Average net income per acre in 1889 .....							
54b. Most approved variety of each .....							
55b. Second most approved variety .....							
56b. Third most approved variety .....							
57b. Fourth most approved variety .....							
58b. Fifth most approved variety .....							
59a. Per cent of increased planting from 1880 to 1885 .....							
60a. Per cent of increased planting from 1885 to 1890.....							

# 300 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Markets, expenses of marketing, selling price of products, income, varieties, and increased planting—Continued.

Inquiries.	Filbert.	Guava.	Kaki (Japan persim- mon).	Lemon.	Lime.	Madeira nut (English walnut).
41b. Average selling price in market, per pound...						
42b. Average selling price in market, per bushel...						
43b. Average selling price in market, per box .....						
44b. Average selling price in market, per barrel .....						
45b. Average selling price in market per 100, when sold by count .....						
46b. Best markets .....						
47b. Cost of transportation .....						
48b. Commissions paid for selling .....						
49b. Total per cent cost of transportation and marketing .....						
50b. Cost of shipping packages, per acre .....						
51b. All other expenses of marketing, per acre .....						
52b. Average net income per acre in 1888 .....						
53b. Average net income per acre in 1889 .....						
54b. Most approved variety of each .....						
55b. Second most approved variety .....						
56b. Third most approved variety .....						
57b. Fourth most approved variety .....						
58b. Fifth most approved variety .....						
59a. Per cent of increased planting from 1880 to 1885 .....						
60a. Per cent of increased planting from 1885 to 1890 .....						

Inquiries.	Olive.	Orange.	Pine- apple.	Pomolo (grape fruit).	Pome- gran- ate.	Pecan.
41b. Average selling price in market, per pound...						
42b. Average selling price in market, per bushel...						
43b. Average selling price in market, per box .....						
44b. Average selling price in market, per barrel .....						
45b. Average selling price in market per 100, when sold by count .....						
46b. Best markets .....						
47b. Cost of transportation .....						
48b. Commissions paid for selling .....						
49b. Total per cent cost of transportation and marketing .....						
50b. Cost of shipping packages, per acre .....						
51b. All other expenses of marketing, per acre .....						
52b. Average net income per acre in 1888 .....						
53b. Average net income per acre in 1889 .....						
54b. Most approved variety of each .....						
55b. Second most approved variety .....						
56b. Third most approved variety .....						
57b. Fourth most approved variety .....						
58b. Fifth most approved variety .....						
59a. Per cent of increased planting from 1880 to 1885 .....						
60a. Per cent of increased planting from 1885 to 1890 .....						

General remarks as to varieties.

Irrigation, diseases, and insect pests:

Is irrigation practiced? If so, how, and at what annual cost per acre?

What diseases, insect pests, or other difficulties are in the way of success?

Remedies for diseases and profits of large and small plantations:

What are the remedies?

Are the large or the small plantations making the greatest per cent of profit on the business? What are some of the causes?

General remarks.

## TRUCK FARMS.

Reported by ....., of ....., County of ....., State of .....

Productions, area, fertilizers, labor, markets, transportation, and income:

Leading products.	No. of acres of each.	Value of land per acre.	Fertilizers and quantity used.	Cost of fertilizers per acre.	Annual labor cost per acre.	Cost of seeds or plants per acre.
Asparagus .....						
Celery .....						
Cabbage .....						
Spinach .....						
Pease .....						
Watermelon .....						
Other melons .....						
Rhubarb .....						

Leading products.	In what markets disposed of.	Cost of shipping packages.	Cost of transportation to market.	Average selling price.	Commission paid.	Average net income per acre from each.
Asparagus .....						
Celery .....						
Cabbage .....						
Spinach .....						
Pease .....						
Watermelon .....						
Other melons .....						
Rhubarb .....						

Area, land value, labor, implements, fertilizers, and income:

Total number of acres.

Value per acre.

Number of men employed.

Average wages per day.

Number of horses and other animals employed.

Value of implements used.

Total amount paid for labor annually.

Total amount paid for fertilizers.

Total gross income.

Total net income.

Is the business increasing; if so, with what crop, and what are the apparent causes?

If the business is decreasing in any line, what are the apparent causes?

Markets and shipping packages:

What markets are most satisfactory?

What are the most approved shipping packages for the various products?

General information:

Remarks as to present condition and future prospects of the business.

## VITICULTURE.

Reported by ....., of ....., County of ....., State of .....

## SCHEDULE A.—AREA PLANTED AND PRODUCTION OF VINEYARDS.

Area in bearing vines.	Area in new vineyards not bearing.	Yield per acre.	Total yield in the county.	Wine made.	Raisins produced.	Brandy distilled.	Wine produced per acre.	Used for wine making.	Used for table grapes.	Used for raisins.	Raisins produced per acre.	Increase in acreage in 10 years.
Acres.	Acres.	Tons.	Tons.	Galls.	Boxes.	Galls.	Galls.	Per ct.	Per ct.	Per ct.	Boxes.	Per ct.
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

Remarks:

[Give the names of towns included, and if any are omitted give the names and the reason for the omission.]

# 302 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## SCHEDULE B.—VALUES OF VINEYARD PROPERTY AND PRODUCTS, PROFITS ON INVESTMENT, ETC.

Average value of land per acre in bearing vineyards.	Average value of land per acre not planted.	Total value of land in vineyards in the county.	Average value of products per acre.	Market value of grapes per ton.	Market value of wine per gallon.	Market value of raisins per box.	Market value of brandy per gallon, tax paid.
Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)

Total value of products in county.	Value of buildings, machinery, and cooperage.	Increase in investment in 10 years.	Increase in value of products in 10 years.	Increase in value of plant in 10 years.	Total amount of capital invested in land and in plant.	Profit on invested capital.
Dollars.	Dollars.	Ratio.	Per cent.	Per cent.	Dollars.	Per cent.
(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

Remarks.

## SCHEDULE C.—DISTRIBUTION AND COST OF LABOR IN VINEYARD OPERATIONS.

No. of men employed.	No. of women employed.	No. of children employed.	No. of artisans employed.	Average wages paid laborers per day.	Average wages paid women and children per day.	Average wages paid artisans per day.	Total number of laborers employed.	Total amount paid for labor in county.	Ratio of cost of labor to whole cost of production.
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

Remarks.

## SCHEDULE D.—DISTRIBUTION OF VARIETIES, SUSCEPTIBILITY TO DISEASE, BEARING QUALITIES, ETC.

Name of variety.	Botanical description or family.	Used for wine or table. (b)	Resistant or not to phylloxera.	Per cent of loss by grape rot.	Per cent of loss by mildew.	Per cent of loss by insects.	Average production per acre in tons.
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

b The following abbreviations should be used: T, for table grape; W, for wine grape; R W, for red wine; W W, for white wine; R, for raisins.

Remarks.

[Add brief statements of facts relating to varieties, their adaptation to localities and soils, the use of fungicides, insecticides, etc. Use blank paper if more room is required.]

## SCHEDULE E.—SHIPMENT OF VINEYARD PRODUCTS.

Year.	Shipment of table grapes to domestic points.	Shipment of wine grapes to domestic points.	Raisins shipped.	Dried, canned, and other grape products shipped to domestic points.	Dried, canned, and other grape products shipped to foreign ports.	Total dried, canned, and other grape products shipped.	Total wine shipped to domestic points.	Total grape brandy shipped to domestic points.	Total wine shipped to foreign ports.	Total grape brandy shipped to foreign ports.
	Tons.	Tons.	Boxes.	Tons.	Tons.	Tons.	Galls.	Galls.	Galls.	Galls.
1880....										
1881....										
1882....										
1883....										
1884....										
1885....										
1886....										
1887....										
1888....										
1889....										
Total										

Remarks.

## SCHEDULE F.—CAPACITY AND OUTPUT OF WINERIES.

Year.	Capacity of cellar.	Grapes crushed.	Wine made.	Brandy distilled.	Amount paid for grapes.	Amount paid for internal-revenue tax.	Amount paid for labor.	Amount paid for cooperage.	Amount paid for presses and machinery.
	Gallons.	Tons.	Gallons.	Gallons.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.
1880....									
1881....									
1882....									
1883....									
1884....									
1885....									
1886....									
1887....									
1888....									
1889....									
Total									

Year.	Incidental expenses not enumerated elsewhere.	Total expenses of operating winery.	Market price of wine per gallon.	Market price of grape brandy per gallon.	Total value of output.	Total value of buildings, machinery, etc.	Profit on investment.	Champagne.		
	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Per ct.	Number produced.	Market price per dozen.	Number sold.
1880....										
1881....										
1882....										
1883....										
1884....										
1885....										
1886....										
1887....										
1888....										
1889....										
Total										

Remarks.

## SCHEDULE G.—SOILS, IRRIGATION, DRAINAGE, METEOROLOGY, FERTILIZERS, ETC.

What is the geological formation of your county or locality, its elevation above sea-level and general characteristics of soil, quality, adaptability to grape culture, and area in acres so adapted?

Are your means of irrigation natural or artificial?

What are the results of irrigation, or the absence of it?

Have you natural or artificial drainage, and what are the results of artificial drainage?

What are the maximum, minimum, and mean temperatures of each month in the year?

What is the total (in degrees) of heat from the period of inflorescence to that of ripening? (Add mean temperatures of all the days during the period.)

What is the maximum, minimum, and mean humidity during the period of growth and ripening of vine products?

What is the rainfall for the year, and for each month, in inches?

In which seasons of the year does the rainfall occur, and what proportion is snow or hail?

What are the kinds and character of fertilizers used, and what is the cost per ton, and quantity applied per acre, etc.?

General remarks on composting and fertilizers in general, as applied to grape culture.

---

### MANUFACTURES.

[No copy has been found of the schedule used in collecting the statistics of manufactures at the census of 1810. The only information obtainable as to the general scope and tenor of the inquiries made at this census, is that derived from the printed report or digest of manufactures made by Tench Coxe, under the direction of the Secretary of the Treasury. As this digest represents the results of the first attempt to gather industrial statistics in this country through the medium of the census, it is thought best, in the absence of the schedule inquiries themselves, to reproduce a list of the articles, etc., for which results, more or less incomplete, are presented in the printed report or digest, showing, in each case, the detail in which the results are presented.]

At the census of 1820 the schedule of inquiries called for a separate return for each establishment and space was provided for the answers as a separate list, by numbers corresponding to the numbers of the inquiries.

At the census of 1840 the inquiries relating to manufactures were contained in a "Schedule of Mines, Agriculture, Commerce, Manufactures, etc.," the complete heading for which is reproduced under the heading of "Agriculture."

At the censuses of 1850, 1860, and 1870 the inquiries relating to manufactures were contained in a schedule entitled "Products of Industry," comprehending the products of manufactures, mines and mining, and the fisheries. In this schedule the inquiries are printed at the heads of columns and the entries made on horizontal cross lines, spaces being provided for 21 entries in 1850 and 20 entries in 1860 and in 1870.

At the census of 1880 the general schedule of inquiries was tabular in form, the inquiries being printed at the heads of columns, and spaces provided on horizontal cross lines for 45 entries to each schedule. The special schedules numbered 1 to 12 (including 10a) were also tabular in form, and called for from 6 to 10 entries to each schedule. The remaining special schedules called for a separate return for each establishment to which sent, and where the inquiries are tabular in form they have been so reproduced.

At the census of 1890 the general and special schedules of inquiries called for a separate return for each establishment, and where the inquiries are tabular in form they have been so reproduced.]

## CENSUS OF 1810.

LIST OF ARTICLES, ETC., FOR WHICH REPORT IS MADE IN THE DIGEST OF MANUFACTURES, AT THE CENSUS OF 1810.

Goods for apparel and furniture, of cotton, woolen, flaxen, hempen, and silken yarn or thread, made in the year 1810:

Cotton goods in families—Yards made; value.  
 Cotton-manufacturing establishments—Number; yards made; value.  
 Cotton duck—Pieces; value.  
 Mixed goods and cotton goods chiefly mixed—Yards made; value.  
 Flaxen cloths in families, etc.—Yards made; value.  
 Mixed cloths and hempen cloths chiefly mixed—Yards made; value.  
 Hempen cloth manufacturing establishments—Pieces of sail duck; yards of cloth made; value.  
 Blended and unnamed cloths and stuffs—Yards made; value.  
 Tow cloth—Yards made; value.  
 Woolen cloth in families, etc.—Yards made; value.  
 Woolen cloths manufacturing establishments—Number; yards made; value.  
 One silk manufactory—Yards made; value.  
 Blankets of wool—Number; value.  
 Carpeting and coverlets—Yards made; value.  
 Bagging (for cotton) of hemp—Establishments; yards made; value.  
 Mixed cloths and flaxen cloths chiefly mixed—Yards made; value.  
 Cotton, woolen, hempen, and flaxen manufacturing establishments.  
 Of all kinds of cloth and stuffs—Value.  
 Cotton and wool spun in mills—Yards made; value.  
 Yarn—Pounds; value.  
 Web, lace, and fringe—Yards made; value.  
 Hempen and flaxen yarn—Mills; tons made; value.  
 Stockings—Manufactories; pairs made; value.  
 Shirt buttons—Dozens; value.  
 Sewing silk and raw silk—Pounds; value.  
 Thread—Runs and skeins; value.

Instruments and machinery for the manufacture of cotton, flax, hemp, wool, and silk into cloths, etc.:

Hand cards—Pairs.  
 Spinning wheels for cotton, flax, wool, etc.—Number.  
 Looms for cotton, wool, etc.—Number.  
 Manufactories of reeds—Reeds made; value.  
 Stocking looms and establishments—Number.  
 Carding machines—Number; pounds carded; value.  
 Fulling mills—Number; yards fullled; value.  
 Labor-saving machinery—Drawing and roving machines; mules; billies; jennies; throstles; twistors; spooling machines; stretchers; looms with fly shuttles; water frames; reels; patent shearing machines; wool pickers; spinning frames; manufactories for making cotton rollers; machines for cutting and setting card teeth.  
 Labor-saving machinery. Wheel irons—Manufactories; number made; value.  
 Wire-card manufactories—Manufactories; hand cards made; value; feet of cards; value.  
 Floor-cloth stamping establishments—Number; yards made; value.  
 Weaving machinery by water.  
 Mills for making machinery for manufacturing cotton and wool—Number; value.  
 Machine makers—Number; value of machines.  
 Spinning-wheel makers—Number.

Hats:

Patent hat looms—Number; hats made of cotton, also straw; value.  
 Hatteries—Number; wool and mixed hats, fur hats; value.

Iron works and manufactures of iron and steel:

Furnaces—Blast furnaces; air furnaces; total number tons made; value.  
 Bloomaries—Number; tons; value.  
 Forges—Number; tons of bar iron, etc.; value.  
 Trip hammers—Number; tons; value.  
 Rolling and slitting mills—Number; tons of rolled iron; tons of slit iron; tons of rolled or slit iron; value.

## Iron works and manufactures of iron and steel—Continued.

Naileries—Number; pounds of nails made; value.  
 Boring mills—Number; gun barrels bored; cannon bored; value.  
 Gunsmiths—Gun manufactories; gunsmiths; guns; rifles; other; amount in dollars.  
 Swords—Number; value.  
 Blacksmiths—Shops; value.  
 Steel—Furnaces; tons; value.  
 Saws—Manufactories; value.  
 Wire drawing—Manufactories; value.  
 Wire workers—Number; value.  
 Planes—Manufactories; planes made; value.  
 Door locks—Number; value.  
 Augers and bits—Number of augers; value of augers and bits.  
 Cutlery—Number of shops; value of coarse and fine work.  
 Currycombs—Dozens; value.  
 Flatirons—Mills for grinding; value.  
 Files—Manufactories; value of files.  
 Hydraulic engines—Makers; value.  
 Tacks—Number; value.  
 Wood screws—Manufactories; gross made; value.  
 Large screws, steel springs, etc.  
 Iron not named—Manufactories.

## Manufactures of gold, silver, set work, and mixed metals:

Clocks and watches—Makers; number of brass clocks; value of clocks and watches.  
 Gold and silver work and jewelry—Shops; value.  
 Tin and copper ware—Shops; value.  
 Tin plate work—Workers; value of work.  
 Brass foundries—Number; pounds of brass made; value.  
 Copper, brass, and tin manufactures—Manufactories; quantity manufactured.  
 Copper and brass—Manufactures.  
 Type foundries—Foundries; pounds made.  
 Brass, jewelry, and plated ware.  
 Plating manufactories—Number; value.  
 Stills made—Number; value.  
 Manufactures of mixed metals—Quantity in pounds; value.  
 Hydrostatic machines.  
 Manufacture of coffee mills—Number; value.  
 Bell foundries—Weight of bells in pounds; value.  
 Metal buttons—Manufactories; quantity, gross; value.

## Lead and manufactures of lead:

Lead in pigs—Tons; value.  
 Black lead—Establishments; value.  
 Red and white lead manufactured—Tons.  
 Leaden shot—Manufactories; tons made; value.  
 Red and white lead, leaden shot, and types—Value.  
 Plumbers' work—Plumbers; value.

## Soap, and candles of tallow, wax, and spermaceti, spring oils and whale oils:

Tallow candles—Manufactories; pounds; value.  
 Hard soap—Pounds.  
 Soft soap—Barrels.  
 Soap—Value.  
 Candles and soap—Value.  
 Spermaceti candles—Pounds; value.  
 White wax candles—Manufactories; value.  
 Spermaceti and whale oil—Gallons spermaceti; gallons whale oil; value of spermaceti and whale oil.  
 Spring oil—Gallons; value.

## Manufactures of hides and skins:

Glue—Value.  
 Razor strops—Manufactories; value.  
 Furriers—Number; value.  
 Catgut—Value.  
 Morocco—Manufactories; dozens of skins; value.  
 Tanneries—Tanneries; number of hides; number of hides and skins; pounds of sole leather; number of calfskins; pounds of leather; number of hogskins; number sheepskins.

**Manufactures of hides and skins—Continued.**

Leather unnamed—Value.

Tanneries—Total value.

Shoes, boots, slippers, trunks, saddles, bridles, and harness—Shoemakers; pairs of shoes, boots, and slippers; trunks; saddlers' shops; number of saddles and bridles; sets of harness; value of shoes, boots, and slippers; value of trunks; value of saddlery; value of shoes, boots, slippers, trunks, and saddlery.

Saddlery, shoes, and shoe binding of leather—Value.

Harness—Value.

Moccasins—Pairs; value.

Dressed buckskins, leather gloves, and overalls—Pairs of buckskin overalls; deer-skins, dressed; leather gloves; dozens of pairs; water mills for dressing leather; value of dressed buckskins; leather gloves and overalls in dollars.

**Manufactures from seeds:**

Mustard—Manufactories; pounds made; value.

Flaxseed oil—Mills; gallons of oil; value.

**Grain, fruit, and cane liquors, distilled and fermented:**

Spirits distilled—Distilleries; stills; gallons of spirits distilled from fruit and grain; gallons of spirits distilled from molasses; value of all spirits distilled.

Beer, ale, and porter—Breweries; quantity brewed in barrels of 31½ gallons each; value.

Wines—Barrels of grape wine of 25 gallons each; value of grape wine; barrels of currant wine of 65 gallons each; value of grape and currant wine.

**Dry manufactures from grain:**

Starch and hair powder—Manufactories; pounds; value.

Wafers—Makers; value.

**Manufactures of wood:**

Shipping—Tons made; value.

Boats—Builders; tons built; value.

Cabinet wares—Makers; value.

Chairs—Chair makers; dozens made; value.

Wagons—Makers; number made; value.

Carriages—Makers; number made; value.

Coopers' wares—Shops; number of casks made; value.

Water-turning machinery—Number; value.

Block and pump makers.

Saddle trees—Makers; number; value.

Last and boot trees—Makers; value.

Print cuts—Establishments; value.

Printing presses—Manufactories; value.

Bark ground—Mills; value.

Baskets—Number; value.

Rakes—Manufactories; number made; value.

Corks cut—Establishments; value.

Wooden clocks—Number; value.

Chip hats—Number.

Wooden ware unnamed—Value.

**Manufactures of essences and oils of and from wood:**

Essence of spruce—Pounds; value.

Oil or spirits turpentine and varnish—Stills for essence turpentine; oil or essence turpentine, gallons; turpentine spirits and varnish, gallons; value of spirits of turpentine and varnish.

**Refined sugar:**

Sugar refined—Refineries; pounds refined; value.

**Manufactures of paper:**

Paper made—Paper mills; reams; rolls; tons; value.

Paper stamped—Paper-hanging establishments; pieces of paper stamped; value.

Playing cards—Manufactories; dozens of packs; value.

**Marble, stone, and slate manufactures:**

Marble manufactured—Marble yards; value.

Marble sawed—Sawmills; quantity sawed in feet; value.

Stonecutters' work—Value.

Millstones—Manufactories; value.

Manufactures of soapstone—Value.

**Glass manufacture:**

Glass made—Works; square feet of glass; number of bottles; value of glass.

Glass, cut—Cutters; value cut.

## Earthen manufactures:

Potter's wares—Potteries; pieces made; value.

## Manufactures of tobacco:

American cigars—Makers; number made; value.

Spanish cigars—Makers; number made; value.

Manufactured tobacco and snuff—Mills; pounds of snuff and tobacco manufactured; pounds of tobacco manufactured; pounds of snuff made; value of snuff and manufactured tobacco.

## Drugs, dyestuffs, paints, etc., and dyeing:

Drugs—Manufactories; value.

Niter, brimstone, borax, etc.—Laboratories; quantity prepared, in tons; value.

Glauber salts—Pounds; value.

Copperas—Pounds; value.

Turmeric—Pounds; value.

Prussian blue—Pounds; value.

Paints—Manufactories; tons made; value.

Lampblack—Manufactories; value made.

Printer's ink—Pounds; value.

Dyeing—Dyers; value of work.

## Rope walks:

Cables and cordage—Rope walks; tons made; value.

## Manufactures of hair:

Brushes—Makers; dozens made; value.

Sieves—Number made; value.

Curled hair—Manufactories; pounds; value.

## Various and miscellaneous manufactures:

Hand bellows—Manufactories; value made.

Chocolate—Manufactories; pounds; value.

Composition ornaments—Manufactories; value.

Corn brooms—Number made; value.

Drums—Manufactories; value.

Engravings—Establishments; value of work.

Bookbinding—Binders; value of work.

Artificial flowers.

Gunpowder—Mills; pounds made; value.

Tortoise-shell, ivory, and horn manufactures:

Dozens of horn combs; value of tortoise-shell, ivory and horn manufactures.

Looking-glass frames—Frames; value.

Muslin and linen printing—Printers; hands employed; gown stuffs, shawls, handkerchiefs, etc.; printed yards; value.

Musical instruments—Value.

Printing—Offices; value of work.

Salt—Works; square feet of roof of works; vats; bushels made; value.

Suspenders—Manufactories; dozens made; value.

Straw bonnets—Number; value.

Spectacles—Value.

Steel thimbles—Dozens; value.

Umbrellas—Makers; value.

Upholstery—Upholsterers; value of work.

Whips—Manufactories; dozens made; value.

Miscellaneous goods—Value.

## Articles of a doubtful nature in relation to their character as manufactures, or agricultural:

Cotton pressed—Presses; value of work.

Flour and meal—Wheat mills; gristmills; bushels ground; barrels of flour or meal; barrels of corn meal; value of flour and meal.

Malt—Bushels; value.

Fulling mills—Number; value fulled.

Pearled barley—Mills; pounds pearled; value.

Windmills—Number; value of work.

Clover seed—Mills; bushels; value.

Horse mills—Number; bushels ground.

Sawmills—Mahogany sawmills; feet of mahogany; value of mahogany sawed; common sawmills; feet sawed; value of common wood sawed.

Pot and pearl ashes—Tons; value.

Maple sugar—Maple tree. Sugar camps; pounds made; value.

Sugar from the cane—Planter's sugar works; hogsheads of sugar; value.

Articles of a doubtful nature in relation to their character as manufactures, or agricultural—Continued.

- Molasses—Hogsheads of 50 gallons each; value.
- Rosin and pitch—Barrels; value.
- Slate—Quarries; value.
- Bricks—Kilns; number of bricks made; value.
- Tiles—Value.
- Saltpeter—Caves; pounds made; value.
- Indigo—Works; pounds made; value.
- Red ocher—Pounds; value.
- Yellow ocher—Tons; value.
- Hemp mills—Pounds; value.
- Hemp—Tons; value.
- Fisheries—Barrels of mackerel; value of fisheries.
- Lime—Kilns; bushels of lime; value.
- Plaster of paris, ground—Tons; value.
- Tobacco—Hogsheads; value.
- Horses, neat cattle, and sheep of various breeds:
  - Horses—Number.
  - Neat cattle—Number.
  - Sheep—Merino of the whole breed; Merino and common breed, mixed; Tunis Mountain or broad-tailed, number; common breeds as expressly named in the returns, number. Whole number returned: Merino, mixed, Tunis, and common.

#### CENSUS OF 1820.

QUESTIONS, TO BE ADDRESSED TO THE PERSONS CONCERNED IN MANUFACTURING ESTABLISHMENTS, BY THE MARSHALS AND THEIR ASSISTANTS, IN TAKING THE ACCOUNT OF MANUFACTURES.

Name of the county, parish, township, town, or city where the manufacture exists.

- Raw materials employed:
  1. The kind.
  2. The quantity annually consumed.
  3. The cost of the annual consumption.
- Number of persons employed:
  4. Men.
  5. Women.
  6. Boys and girls.
- Machinery:
  7. Whole quantity and kind of machinery.
  8. Quantity of machinery in operation.
- Expenditures:
  9. Amount of capital invested.
  10. Amount paid annually for wages.
  11. Amount of contingent expenses.
- Production:
  12. The nature and names of articles manufactured.
  13. Market value of the articles which are annually manufactured.
  14. General remarks concerning the establishment, as to its actual and past condition, the demand for, and sale of, its manufacture.

#### CENSUS OF 1840.

[The subjoined inquiries relating to manufactures were contained in a "Schedule of Mines, Agriculture, Commerce, Manufactures, etc.," the complete heading for which is reproduced under "Agriculture."]

#### MANUFACTURES.

- Machinery:
  - Value manufactured.
  - Number of men employed.
- Hardware, cutlery, etc.:
  - Value manufactured.
  - Number of men employed.

310 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Cannon and small arms:

Number of cannon cast.  
Number of small arms made.  
Number of men employed.

Precious metals:

Value manufactured.  
Number of men employed.

Various metals:

Value manufactured.  
Number of men employed.

Granite, marble, etc.

Value manufactured.  
Number of men employed.

Bricks and lime:

Value manufactured.  
Number of men employed.

Capital invested in preceding manufactures.

Wool:

Number of fulling mills.  
Number of woolen manufactories.  
Value of manufactured goods.  
Number of persons employed.  
Capital invested.

Cotton:

Number of cotton manufactories.  
Number of spindles.  
Dyeing and printing establishments.  
Value of manufactured articles.  
Number of persons employed.  
Capital invested.

Silk:

Number of pounds reeled, thrown, or other silk made.  
Value of the same.  
Number of males employed.  
Number of females and children employed.  
Capital invested.

Flax:

Value of manufactures of flax.  
Number of persons employed.  
Capital invested.

Mixed manufactures:

Value of produce.  
Number of persons employed.  
Capital invested.

Tobacco:

Value of manufactured articles.  
Number of persons employed.  
Capital invested.

Hats, caps, bonnets, etc.:

Value of hats and caps manufactured.  
Value of straw bonnets.  
Number of persons employed.  
Capital invested.

Leather, tanneries, saddleries, etc.:

Number of tanneries.  
Sides of sole leather tanned.  
Sides of upper leather tanned.  
Number of men employed.  
Capital invested.  
All other manufactories of leather, saddleries, etc.  
Value of manufactured articles.  
Capital invested.

Soap and candles:

Number of pounds of soap.  
Number of pounds of tallow candles.  
Number of pounds of sperm and wax candles.  
Number of men employed.  
Capital invested.

**Distilled and fermented liquors:**

Number of distilleries.  
 Gallons produced.  
 Number of breweries.  
 Gallons produced.  
 Number of men employed.  
 Capital invested.

**Powder mills:**

Number of powder mills.  
 Pounds of gunpowder made.  
 Number of men employed.  
 Capital invested.

**Drugs and medicines, paints, and dyes:**

Value of medicinal drugs, paints, dyes, etc.  
 Turpentine and varnish—value produced.  
 Number of men employed.  
 Capital invested.

**Glass, earthenware, etc.**

Number of glass-houses.  
 Number of glass-cutting establishments.  
 Number of men employed.  
 Value of manufactured articles, including looking-glasses.  
 Capital invested.  
 Number of potteries.  
 Value of manufactured articles.  
 Number of men employed.  
 Capital invested.

**Sugar refineries, chocolate, etc.:**

Number of sugar refineries.  
 Value of produce.  
 Value of chocolate manufactured.  
 Value of confectionery made.  
 Number of men employed.  
 Capital invested.

**Paper:**

Number of manufactories.  
 Value of produce.  
 Value of all other manufactures of paper, playing cards, etc.  
 Number of men employed.  
 Capital invested.

**Printing and binding:**

Number of printing offices.  
 Number of binderies.  
 Number of daily newspapers.  
 Number of weekly newspapers.  
 Number of semiweekly and triweekly newspapers.  
 Number of periodicals.  
 Number of men employed.  
 Capital invested.

**Cordage:**

Number of rope walks.  
 Value of produce.  
 Number of men employed.  
 Capital invested.

**Musical instruments:**

Value produced.  
 Number of men employed.  
 Capital invested.

**Carriages and wagons:**

Value of manufacture.  
 Number of men employed.  
 Capital invested.

**Mills:**

Number of flouring mills.  
 Barrels of flour manufactured.  
 Number of grist mills.  
 Number of saw mills.

## 312 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### Mills—Continued.

- Number of oil mills.
- Value of manufactures.
- Number of men employed.
- Capital invested.

### Ships:

- Value of ships and vessels built.

### Furniture:

- Value of furniture manufactured.
- Number of men employed.
- Capital invested.

### Houses:

- Number of brick and stone houses built.
- Number of wooden houses built.
- Number of men employed.
- Value of constructing or building.

### All other manufactures:

- All other manufactures not enumerated.
- Capital invested.

Total capital invested in manufactures.

## CENSUS OF 1850.

SCHEDULE 5.—PRODUCTS OF INDUSTRY in ....., in the County of ....., State of ....., during the year ending June 1, 1850, as enumerated by me. ...., Ass't Marshal.

1. Name of the corporation, company, or individual producing articles to the annual value of \$500.
2. Name of business, manufacture, or product.
3. Capital invested in real and personal estate in the business.  
Raw material used, including fuel:
4. Quantities.
5. Kinds.
6. Values.
7. Kind of motive power, machinery, structure, or resource.  
Average number of hands employed:
8. Male.
9. Female.
- Wages:
10. Average monthly cost of male labor.
11. Average monthly cost of female labor.
- Annual product:
12. Quantities.
13. Kinds.
14. Values.

### EXPLANATION OF SCHEDULE 5.—PRODUCTS OF INDUSTRY.

This schedule is designed to contain the returns of all the products of industry (excepting agricultural, which is provided for in the previous schedule) of each producer or establishment.

Should any one object on the ground of *not wishing to expose the nature of his business*, the assistant marshal should state that it is not desired to elicit any information which will be used or published as concerning the operations of any individual or concern. The individual facts are confidentially imparted and received, and will only be published, if at all, in connection with and as part of a great body of similar facts, from which it will be impossible to abstract or distinguish those of individual firms or corporations. All aggregate results must be made up of individual statements.

1. Under heading 1, entitled "*Name of the corporation, company, or individual*," is to be inserted the name of the owner of the establishment or business inquired into, either individual, company, or corporation, as the case may be.

2. Under heading 2, "*Name of business or manufacture*," is to be inserted the name of each kind of business, or of each kind of article produced, concerning which information is to be obtained. The question which the assistant marshal should ask is: What is the name of the business you follow, or the name of the principal article or

articles you produce? The answer to the question should state the specific name by which the business or article is known in the place where produced.

If an establishment consists of several mills, or is carried on in several different places within the same subdivision, but for the same concern, it is to be considered as one, being owned by one individual or company.

The assistant marshals are directed not to include in this schedule household manufactures and small mechanical operations, where the annual productions do not exceed \$500.

All kinds of mercantile, commercial, or trading business, where no specific article is produced or manufactured, but which are confined to dealing and exchange of articles of merchandise or manufacture, *are to be included in this schedule.*

*The first entry* in relation to the details of each separate business, in each column, is to be on the same line with the name of the corporation, etc., so as to prevent confusion or mistake.

3. Under heading 3, entitled "*Capital invested in real and personal estate in the business,*" the aggregate amount of the capital, real and personal, is to be inserted.

Under general heading "Raw material used," and under heads 4, 5, and 6, the quantity, kind, and value of each material used in the business during the last year are to be inserted.

By "raw material" is meant the fuel, and the articles used for the production of a manufacture. An article produced or manufactured by one establishment may be the raw material of another, as copper ore, the article produced by the miner, is the raw material of the copper smelter; or pig iron, the article produced at the furnace, is the raw material used by the rolling mill. Hides are the raw material of the tanner; while leather, the article he produces, is the raw material in the manufacture of boots and shoes.

The number of entries in all cases, and in each column, should be *limited to six lines.* The first four (in case that number be required) should specify the most prominent and important articles; the last line, the kind and value of fuel; and under the headings "Quantity" and "Kinds," the terms "Other articles," or "Miscellaneous," should include the value of all other materials used.

In several kinds of business, such as quarrying, mining, etc., *no raw material* being used, the spaces under this general heading are to be left blank.

4. Under heading 4, entitled "Quantity," is to be inserted the quantity of each article used, as far as it can be ascertained. By quantity is meant the usual mode and terms of expressing the weights, measurements, or amount of the articles when bought and sold—as pounds of tallow, bales of cotton, reams of paper, tons or bushels of coal, bushels or barrels of salt, etc., and the initial letter of such terms should precede the amount, as "T" for tons, "B" for bales, "Bush" for bushels, "Bl" for barrel, etc.

5. Under heading 5, entitled "Kinds," insert an ordinary brief name, designating the article referred to. When the quantity can not easily be stated and expressed, the kind and value only need be inserted.

6. Under heading 6, entitled "*Value,*" is to be inserted the whole value of each article specified and named in the two preceding columns. This value is always to represent the cost of the article *at the place where it is used.* Opposite the term "Other articles," or "Miscellaneous," when such terms are used, is to be inserted the aggregate value of all the articles not previously specified; when there are several articles included, the aggregate value need only be stated.

7. Under heading 7, entitled "*Kind of motive power, machinery, structure, or resource,*" is to be inserted, first, in regard to *motive power*, as water, steam, horse, wind, or otherwise, as the fact may be; second, in regard to *machinery*, the number of spindles, looms, power printing presses, mills, and runs of stones, sawmills, number of saws, or other appropriate amount of the quantity and kind of machinery; third, in regard to other kinds of *structure or resource*, as furnaces, number of fires; bloomeries, number of fires; stone quarries, mines of any kind, ships, vessels, or boats used for fishing, etc.

8 and 9. Under the general heading, "Hands employed," is to be inserted, under *Male* and *Female*, columns 8 and 9, the average number of each sex employed during the year in the manufacturing business. These numbers are to be estimated either by an average of the whole year, or by selecting a day when about an average number was employed, and inserting the number on such a day as the average.

10 and 11. Under heading 10 and 11, entitled "*Wages,*" is to be inserted the average monthly amount paid for all the labor of all the hands, *male and female*, employed in the business or manufacture during the course of the year. In all cases when the employer boards the hands, the usual charge of board is to be added to the wages; so that *cost of labor* is always to mean the amount paid, whether in money,

## 314 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

or partly in money and partly in board; the average number of hands and the average monthly wages are to be returned, so that by dividing the latter by the former the result will show the average earnings of individuals. This is also to include the individual labor of a producer, working on his own account, whose productions are separately enumerated.

12, 13, 14. Under the general heading, entitled "*Annual products*," is to be inserted the *quantity, kind, and value of each* produced during the whole year. It will require great care to fill this column properly. When several articles are manufactured, the first four only need be particularly specified, and the remainder classed under a general heading of "*Other articles*," and the aggregate value of such articles carried out, the quantity being omitted; or, where otherwise impracticable in any case, the aggregate value, without the specific quantity or kind. In stating the value of the products, the value of the articles *at the place of manufacture* is to be given, exclusive of the cost of transportation to any market.

### CENSUS OF 1860.

SCHEDULE 5.—PRODUCTS OF INDUSTRY in ....., in the County of ....., State of ....., during the year ending June 1, 1860, as enumerated by me.

Post-office: ..... Ass't Marshal.

1. Name of corporation, company, or individual producing articles to the annual value of \$500.
2. Name of business, manufacture, or product.
3. Capital invested, in real and personal estate, in the business.  
Raw material used, including fuel:
4. Quantities.
5. Kinds.
6. Values.
7. Kind of motive power, machinery, structure, or resource.  
Average number of hands employed:
8. Male.
9. Female.
- Wages:
10. Average monthly cost of male labor.
11. Average monthly cost of female labor.
- Annual product:
12. Quantities.
13. Kinds.
14. Values.

### CENSUS OF 1870.

SCHEDULE 4.—PRODUCTS OF INDUSTRY in ....., in the County of ....., State of ....., during the year ending June 1, 1870, as enumerated by me.

Post-office: ..... Ass't Marshal.

1. Name of corporation, company, or individual producing to value of \$500 annually.
2. Name of business, manufacture, or product.
3. Capital (real and personal) invested in the business.  
Motive power:
4. Kind of power (steam, water, wind, horse, or hand).
5. If steam or water, number of horsepower.
- Machines:
6. Name or description.
7. Number of.
- Average number of hands employed:
8. Males above 16 years.
9. Females above 15 years.
10. Children and youth.
11. Total amount paid in wages during year.
12. Number of months in active operation, reducing part time to full time.  
Materials (including mill supplies and fuel):
13. Kinds.
14. Quantities.
15. Values (omitting fractions of a dollar).
- Production (including all jobbing and repairing):
16. Kinds.
17. Quantities.
18. Values (omitting fractions of a dollar):

## CENSUS OF 1880.

## GENERAL SCHEDULE.

**SCHEDULE 3.—MANUFACTURES—PRODUCTS OF INDUSTRY** in ....., in the County of ....., State of ....., during the twelve months beginning June 1, 1879, and ending May 31, 1880, as enumerated by me. ...., Enumerator.  
Post-office: .....

Page No.; Supervisor's district No.; Enumeration district No.

The following classes of manufacturing establishments will be reported on a special manufacturing schedule, and not on this schedule, viz:

- |                                  |                                   |
|----------------------------------|-----------------------------------|
| (1) Boot and shoe factories.     | (6) Brickyards and tile works.    |
| (2) Cheese and butter factories. | (7) Paper mills.                  |
| (3) Flouring and grist mills.    | (8) Coal mines.                   |
| (4) Salt works.                  | (9) Agricultural-implement works. |
| (5) Lumber mills and sawmills.   | (10) Quarries.                    |

1. Name of corporation, company, or individual producing to the value of \$500 annually.
2. Name of business, manufacture, or product.
3. Capital (real and personal) invested in the business.
4. Greatest number of hands employed at any one time during the year.  
Average number of hands employed:
  5. Males above 16 years.
  6. Females above 15 years.
  7. Children and youth.
- Wages and hours of labor:
  - Number of hours in the ordinary day of labor:
    8. May to November.
    9. November to May.
  10. Average day's wages for a skilled mechanic.
  11. Average day's wages for an ordinary laborer.
  12. Total amount paid in wages during the year.
- Months in operation:
  13. On full time.
  14. On three-fourths time only.
  15. On two-thirds time only.
  16. On one-half time only.
  17. Idle.
18. Value of material (including mill supplies and fuel, omitting fractions of a dollar).
19. Value of product (including jobbing and repairing, omitting fractions of a dollar).  
Power used in manufacture:
  - If water power is used—
    20. On what river or stream.
    21. Height of fall, in feet.
  - Wheels:
    22. Number.
    23. Kind.
    24. Breadth, in feet.
    25. Revolutions per minute.
    26. Horsepower.
  - If steam power is used—
    27. Number of boilers.
    28. Number of engines.
    29. Horsepower.

**REMARKS.**—The term "Productive Industry" must be understood, in its largest significance, to include not only all factories and large works, but also the mechanical trades, as blacksmithing, coopering, carpentering, etc. The smallest shop should not be omitted, provided the production reaches \$500 annually, including the cost of materials. Enumerators will take pains to reach all of the productive establishments, large and small, within their several districts.

Column 2. The kind of business or the character of product should be described as specifically as possible, thus: Sewing machines, corsets, furniture, foundry, machine shop, coopering, blacksmithing, etc.

Column 11. In many establishments (as carpenter shops, blacksmith shops, etc.) it will be found that no ordinary laborers are employed. In this case column 11 will not be filled.

Columns 13 to 17. All the 12 months of the year should be accounted for in one or more of the columns 13 to 17, thus: 12 months on full time; or 8 months on full time and 4 months on half time; or 10 months on full time and 2 months idle.

Columns 18 and 19. These inquiries are of prime importance. Great care and judgment should be exercised in making the returns relative thereto, especially in the case of small shops where book accounts are not kept.

(18) The cost of superintendence, rent, freight of goods to market, and other general expenses of a manufacturing establishment are not to be included in materials. Mill supplies and fuel should be included.

(19) The value of the product, in the case of mills and factories producing for a distant market, means the wholesale price of the goods. In the case of small shops producing goods, or doing work, for the neighborhood only, the value of the product means the price charged at the shop.

Column 20. If the stream is a very small one, mention also the larger stream or river into which it flows.

Columns 27 and 28. Only serviceable boilers and engines are to be reported.

Columns 26 and 29. This is an inquiry of great importance. The best information available should be used in filling these columns.

#### SPECIAL SCHEDULE No. 1.—AGRICULTURAL IMPLEMENTS.

[Inquiries numbered 1 to 17, inclusive, in general schedule No. 3 are common to this special schedule (with the exception of inquiries 2 and 15, which are not asked) and are not here reproduced.]

##### Materials:

Value of lumber used in manufacturing.

Value of iron and steel used in manufacturing.

Value of all other materials.

Total value of all materials.

##### Products:

###### Seeders and planters:

Number of corn planters.

Number of cotton planters.

Number of fertilizer distributors.

Number of grain drills.

Number of grain sowers.

Number of seed sowers.

Number of transplanters.

###### Implements of cultivation:

Number of clod crushers.

Number of cotton choppers.

Number of cultivators.

Number of harrows.

Number of dozen hoes.

Number of plows.

Number of dozen shovels.

Number of rollers.

###### Harvesting implements:

Number of corn shuckers.

Number of fruit gatherers.

Number of grain cradles.

Number of harvesters.

Number of dozen hand rakes.

Number of dozen hayforks.

Number of hay loaders.

Number of hay tedders.

Number of horserakes.

Number of lawn mowers.

Number of mowers.

Number of potato diggers.

Number of reapers.

Number of reapers and mowers combined.

Number of scythes.

Number of scythe snaths.

Number of sickles.

**Products—Continued.****Seed separators:**

Number of clover hullers.  
 Number of corn huskers.  
 Number of cornshellers.  
 Number of fanning mills.  
 Number of separators.  
 Number of thrashers.

**Miscellaneous:**

Number of cane mills.  
 Number of cider and wine mills.  
 Number of feed steamers and boilers.  
 Number of hay and straw cutters.  
 Number of hay presses.  
 Number of horsepower.  
 Number of stalk pullers.  
 Number of stone gatherers.  
 Number of stump pullers.  
 Number of sirup evaporators.  
 Specify number and kind of other products.

[5 blank columns.]

Value of all other products not specified.

Total value of all products.

[Inquiries 20 to 29, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

**SPECIAL SCHEDULE No. 2.—PAPER MILLS.**

[Inquiries numbered 1 to 9, inclusive, in general schedule No. 3 are common to this special schedule (with the exception of inquiry 2, which is not asked) and are not here reproduced.]

**Wages and hours of labor:****Skilled labor:**

Average day's wages for a superintendent or foreman.  
 Average day's wages for a machinist or repairer.  
 Average day's wages for a machine tender.  
 Average day's wages for a rag engineer.  
 Average day's wages for a foreman of loft.  
 Average day's wages for a foreman of finishing department.  
 Average day's wages for other skilled labor.

[Inquiries numbered 11 to 17, inclusive, in general schedule No. 3 are common to this special schedule (with the exception of inquiry 15, which is not asked) and are not here reproduced.]

**Engines:****Tub engines:**

Number of washers.  
 Length of roll-bars.  
 Diameter of rolls.  
 Maximum capacity in pounds.  
 Number of beaters.  
 Length of roll-bars.  
 Diameter of rolls.  
 Maximum capacity in pounds.

**Name and number of other engines:**

Number Kingsland engines.  
 Number of Jordan engines.  
 Number of Gould engines.

[6 blank columns.]

**Paper machines:**

Number of Fourdrinier machines.  
 Width, in inches.  
 Number of cylinder machines.  
 Width, in inches.

[Inquiries numbered 20 to 29, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

**Materials:**

Tons of rags.  
 Tons of old paper.

318 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Materials—Continued.

- Tons of cotton waste.
- Tons of manila stock.
- Tons of straw.
- Tons of corn stock.
- Tons of esparto grass.
- Cords of poplar wood.
- Cords of other wood.
- Value of all chemicals.
- Value of all other materials.
- Value of pulp (a).
- Total value of all materials.

Products:

- Tons of printing paper.
- Tons of writing paper.
- Tons of wrapping paper.
- Tons of binders' board.
- Tons of wall paper.
- Pounds of colored paper.
- Pounds of bank-note paper.
- Pounds of tissue paper.
- Pounds of all other paper.
- Total value of all products.

SPECIAL SCHEDULES NOS. 3 AND 4.—BOOTS AND SHOES—LEATHER (TANNED AND CURRIED).

BOOTS AND SHOES.

[Inquiries numbered 1 to 17, inclusive, in general schedule No. 3 are common to this special schedule (with the exception of inquiries 2 and 15, which are not asked) and are not here reproduced.]

Machines:

- Number of sewing machines.
- Number of pegging machines.
- Number of screwing and nailing machines

Materials:

- Number of sides sole leather.
- Number of sides upper leather.
- Pounds of other leather.
- Value of all other materials.
- Total value of all materials.

Products:

- Number of pairs of boots.
  - Value.
- Number of pairs of shoes.
  - Value.
- Value of unspecified products, including repairing.
- Total value of all products.

[Inquiries numbered 20 to 29, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

LEATHER (TANNED AND CURRIED).

[Inquiries numbered 1 to 17, inclusive, in general schedule No. 3 are common to this special schedule (with the exception of inquiries 2 and 15, which are not asked) and are not here reproduced.]

Tanning:

Materials:

- Number of tons hemlock bark.
- Sources whence hemlock bark is procured.
- Number of tons oak bark.
- Sources whence oak bark is procured.
- Number of hides.
- Number of skins.
- Total value of all materials.

---

<sup>a</sup> Inquiry applicable only where the pulp is purchased, and not manufactured by company or corporation.

**Tanning—Continued.**

**Products:**

- Number of sides of leather.
- Number of skins.
- Total value of products.

**Currying:**

**Materials:**

- Number of sides of leather.
- Number of skins.
- Number of gallons of oil.
- Total value of all materials.

**Products:**

- Number of sides of leather.
- Number of skins.
- Total value of products.

[Inquiries numbered 20 to 29, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

**SPECIAL SCHEDULES NOS. 5 AND 6.—LUMBER MILLS AND SAW MILLS—BRICK YARDS AND TILE WORKS.**

**LUMBER MILLS AND SAWMILLS.**

[Inquiries numbered 1 to 17, inclusive, in general schedule No. 3 are common to this special schedule (with the exception of inquiries 2 and 15, which are not asked) and are not reproduced.]

**Saws:**

- Number of gangs.
- Number of saws in gangs.
- Number of circular saws.
- Number of muley saws.
- Number of band-saws.

**Materials:**

- Value of logs.
- Value of mill supplies.
- Total value of all materials (including value of logs).

**Proper sawmill products:**

- Number of thousand feet of lumber.
- Number of thousand laths.
- Number of thousand shingles.
- Number of thousand staves.
- Number of thousand sets of headings.
- Number of thousand feet of bobbin and spool stock.
- Total value of all products heretofore named.
- Total value of all other products.

**Remanufactures:**

- Do you remanufacture any portion of your own cut into sash, doors, blinds, frames, clapboards, etc.? (Yes or No.)
- If so, give total value of such manufactures.
- Give average number of hands employed in such remanufacture.
- From what region do you procure your logs?
- Do you do your own logging? (Yes or No.)
- If so, what proportion of your logs do you bring in?
- Do you ship your product in your own vessels? (Yes or No.)

[Inquiries numbered 20 to 29, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

**BRICKYARDS AND TILE WORKS.**

[Inquiries numbered 1 to 17, inclusive, in general schedule No. 3 are common to this special schedule (with the exception of inquiries 2 and 15, which are not asked) and are not here reproduced.]

**Materials:**

- Number of cords wood.
- Value of all other material.
- Total value of all materials.

**Products:**

- Number of thousand common brick.
- Number of thousand fire brick.

## 320 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### Products—Continued.

- Number of thousand pressed brick.
- Value of tile.
- Value of drainpipe.
- Value of all other products.
- Total value of all products.

[Inquiries numbered 20 to 29, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

### SPECIAL SCHEDULES NOS. 7 AND 8.—FLOUR AND GRIST MILLS—CHEESE, BUTTER, AND CONDENSED-MILK FACTORIES.

#### FLOURING AND GRIST MILLS.

[Inquiries numbered 1 to 17, inclusive, in general schedule No. 3 are common to this special schedule (with the exception of inquiries 2 and 15, which are not asked) and are not here reproduced.]

- Number of runs of stone.
- Estimated maximum capacity per day, in bushels.
- Do you do custom work or make only for a market? If the former, what proportion of your product is custom grinding?
- Is there an elevator connected with your establishment? If so, state capacity in bushels.

[Inquiries numbered 20 to 29, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

#### Materials:

- Number of bushels of wheat.
- Value.
- Number of bushels of other grain.
- Value.
- Value of mill supplies.
- Total value of all materials.

#### Products:

- Number of barrels of wheat flour.
- Number of barrels of rye flour.
- Number of pounds of buckwheat flour.
- Number of pounds of barley meal.
- Number of pounds of corn meal.
- Number of pounds of feed.
- Number of pounds of hominy.
- Value of all other products.
- Total value of all products.

#### CHEESE, BUTTER, COMBINED BUTTER AND SKIM-CHEESE, AND CONDENSED-MILK FACTORIES.

#### General inquiries applicable to all factories named above:

[Inquiries numbered 1 to 7, inclusive, in general schedule No. 3 are common to this special schedule (with the exception of inquiry 2, which is not asked) and are not here reproduced.]

#### Wages:

- Average day's wages for a dairyman.
- Average day's wages for ordinary labor.
- Total amount paid in wages during the year.
- Total value of labor employed in the year.
- Date when manufacturing season opened.
- Date when manufacturing season ended.
- Average number of cows furnishing milk during the year 1879.
- Average cost of milk per 100 pounds, if bought at the factory.
- Total number of pounds of milk used at the factory during the year.

#### Inquiries applicable to cheese factories only:

- Number of pounds of cheese made.
- Kinds of cheese.
- Average pounds of milk used per pound of cheese produced.
- Average price per pound at which cheese was sold for the season.
- Price per 100 pounds paid for making.
- Cost of furnishing per 100 pounds.

**Inquiries applicable to butter factories only:**

Number of pounds of butter made.  
 Average pounds of milk used per pound of butter produced.  
 Average price per pound at which butter was sold for the season.  
 Price per 100 pounds paid for making.  
 Cost of furnishing per 100 pounds.  
 Value of buttermilk and skimmed milk sold.

**Inquiries applicable to combined butter and skim-cheese factories only:**

Number of pounds of butter made.  
 Number of pounds of cheese made.  
 Average pounds of milk used per pound of butter produced.  
 Average pounds of milk used per pound of cheese produced.  
 Average price per pound at which butter was sold for the season.  
 Average price per pound at which cheese was sold for the season.  
 Price per 100 pounds paid for making butter.  
 Price per 100 pounds paid for making cheese.  
 Cost of furnishing per 100 pounds of butter.  
 Cost of furnishing per 100 pounds of cheese.  
 Value of buttermilk and skimmed milk sold.

**Inquiries applicable to condensed-milk factories only:**

Number of pounds of condensed milk produced.  
 Value of condensed milk produced.

[Inquiries numbered 20 to 29, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

**SPECIAL SCHEDULES NOS. 9 AND 10.—SLAUGHTERING AND MEAT PACKING—  
SALT WORKS.**

**SLAUGHTERING AND MEAT PACKING.**

[Inquiries numbered 1 to 17, inclusive, in general schedule No. 3 are common to this special schedule (with the exception of inquiries 2, 6, and 15, which are not asked) and are not here reproduced.]

**Materials:**

Total number of beeves slaughtered.  
 Average gross weight of beeves in pounds.  
 Total value of beeves slaughtered.  
 Total number of sheep slaughtered.  
 Average gross weight of sheep in pounds.  
 Total value of sheep slaughtered.  
 Total number of hogs slaughtered.  
 Average gross weight of hogs in pounds.  
 Total value of hogs slaughtered.  
 Value of all animals slaughtered.  
 Value of all other materials used, including cooperage.  
 Total value of all materials.

**Products:**

Pounds of beef sold fresh.  
 Pounds of beef canned.  
 Pounds of beef salted or cured.  
 Pounds of mutton sold fresh.  
 Pounds of pork sold fresh.  
 Pounds of pork salted.  
 Pounds of bacon and hams.  
 Pounds of lard.  
 Value of all other products.  
 Total value of all products.

[Inquiries numbered 20 to 29, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

**SALT WORKS.**

[Inquiries numbered 1 to 17, inclusive, in general schedule No. 3 are common to this special schedule (with the exception of inquiries 2 and 15, which are not asked) and are not here reproduced.]

**If by boiling process:**

**Machines:**

Number of blocks.  
 Number of boilers.  
 Aggregate capacity in gallons

322 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

If by boiling process—Continued.

Machines—Continued.

Number of kettles.

Aggregate capacity in gallons.

Number of pans.

Aggregate capacity in gallons.

Materials:

Number of tons coal.

Value.

Number of cords wood.

Value.

Value of all other materials.

Total value of all materials.

If by solar evaporation :

Machines:

Number of vats.

Aggregate area in square feet.

Materials:

Total value of all materials.

Product :

Number of bushels salt.

Value.

[Inquiries numbered 20 to 29, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

SPECIAL SCHEDULE No. 10a.—SALT WORKS.

[Inquiries numbered 1 to 17, inclusive, in general schedule No. 3 are common to this special schedule (with the exception of inquiries 2 and 15, which are not asked) and are not here reproduced.]

Number of wells.

Average depth of wells (in feet).

Strength of brine (degrees Baumé).

If by boiling process:

Machines:

Number of blocks.

Number of boilers.

Aggregate capacity in gallons.

Number of kettles.

Aggregate capacity in gallons.

Number of pans.

Aggregate capacity in gallons.

Number of settlers.

Aggregate capacity in gallons.

Number of grainers.

Aggregate capacity in gallons.

Materials:

(a)

If by solar evaporation:

(a)

Product:

If inspected:

Number of barrels—Grade No. 1.

Number of barrels—Grade No. 2.

Number of bushels salt.

Value.

[Inquiries numbered 20 to 29, inclusive, are common to this special schedule and are not here reproduced.]

SPECIAL SCHEDULES Nos. 11 AND 12.—SMALL COAL MINES—QUARRIES.

COAL MINES.

Name of corporation, company, or individual producing to the value of \$500 annually.

Capital (real and personal) invested in the business.

Year in which the mine was opened.

---

*a* Inquiries under this heading are similar to those in special schedule No. 10.

State kind of coal mined.  
 Give total number of acres of coal land worked.  
 Has any fire occurred in the mine during the year?  
 If so, the cause of the fire.  
 Amount of total loss by fire.  
 Principal market. (Give city and state.)  
 State mode of transportation—by rail, vessel, or otherwise.  
 Accidents to persons during the year:  
     Number killed.  
     Number permanently disabled.  
     Number disabled longer than one week.  
 Present maximum yearly capacity, in tons.  
 Depth of mine, in feet.  
 Depth of shaft, in feet.  
 Length of tunnel, in feet.  
 Greatest number of hands employed at any one time during the year.  
 Average number of hands employed:  
     Number of males employed underground above 16 years.  
     Number of males employed underground under 16 years.  
     Number of males employed above ground above 16 years.  
     Number of males employed above ground under 16 years.  
 Wages and hours of labor:  
     Number of hours in the ordinary day of labor:  
         May to November.  
         November to May.  
     Average day's wages for a miner.  
     Average day's wages for other skilled labor.  
     Average day's wages for an ordinary laborer.  
     Total amount of wages paid during the year.

[Inquiries numbered 13 to 17, inclusive, in general schedule No. 3 are common to this special schedule (with the exception of inquiry 15, which is not asked) and are not here reproduced.]

Machines:  
     Number of hoisting machines.  
     Number of drainage machines.  
     Number of breaking machines.

Materials:  
     Number of cords of wood.  
     Value of explosives.  
     Value of all other materials.  
     Total value of all materials.

Products:  
     Tons of bituminous coal.  
         Value.  
     Tons of anthracite coal.  
         Value.

[Inquiries numbered 20 to 29, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

#### QUARRIES.

Name of corporation, company, or individual producing to the value of \$500 annually.  
 Capital (real and personal) invested in the business.  
 Year in which the quarry was opened.  
 Give the total area excavated from the beginning, in cubic yards.  
 State kind of rock quarried.  
 Is the rock dressed at the quarry? (Yes or No.)  
 Principal market. Give city and state.  
 State mode of transportation—whether by rail, wagon, barge, or otherwise.  
 Is steam power used for drainage purposes?  
 Accidents to persons during the year:  
     Number killed.  
     Number permanently disabled.  
     Number disabled longer than one week.  
 Greatest number of hands employed at any one time during the year.  
 Average number of hands employed:  
     Males above 16 years.  
     Children and youth.

## 324 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

[Inquiries numbered 8 to 17, inclusive, in general schedule No. 3 are common to this special schedule (with the exception of inquiry 15, which is not asked) and are not here reproduced.]

### Machines:

- Number of steam drills.
- Number of steam cranes.
- Give number and kind of other machines.

### Materials:

- Number of tons of coal.
- Number of cords of wood.
- Total value of all materials.

### Products:

- Number of cubic yards of marketed product taken out during the year.
- Value.

[Inquiries numbered 20 to 29, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

### SPECIAL SCHEDULE.—CHEMICAL PRODUCTS.

[Inquiries numbered 1 to 9, inclusive, in Special Schedule—Blast Furnaces, are common to this special schedule and are not here reproduced.]

- Average day's wages for a skilled mechanic.
- Average day's wages for unskilled labor.
- Number of months in active operation in the year, reducing part time to full time.
- Number of hours in the ordinary day of labor.
- Alcohol used directly—gallons; value.
- Alcohol used as a vehicle—gallons; value.
- Anthracite coal used—tons; value.
- Bituminous coal used—tons; value.
- Value of all other materials used in manufacture of chemicals.
- Total value of all materials used in manufacture of chemicals.
- Pounds of alum produced; value.
- Pounds of aniline colors produced; value.
- Pounds of anthracine produced; value.
- Pounds of sulphate of ammonia produced; value.
- Tons of ground barytes produced; value.
- Pounds of borax produced; value.
- Pounds of bromine produced; value.
- Pounds of stearic-acid candles produced; value.
- Pounds of oleic-acid soap produced; value.
- Pounds of glycerine produced; value.
- Gallons of castor oil produced; value.
- Tons of manufactured manures produced; value.
- Pounds of white lead produced; value.
- Pounds of other salts of lead produced; value.
- Pounds of licorice produced; value.
- Pounds of acetate of lime produced; value.
- Pounds of nitro-glycerine produced; value.
- Pounds of phosphorus produced; value.
- Pounds of colors produced, not ground or mixed with oil or other vehicle; value.
- Pounds of bichromate of potash produced; value.
- Pounds of potash produced; value.
- Pounds of soda produced; value.
- Pounds of sulphur produced; value.
- Pounds of sulphuric acid produced; value.
- Pounds of zinc oxide produced; value.
- Pounds of other salts of zinc produced; value.
- Value of products not otherwise herein enumerated.

### SPECIAL SCHEDULE.—STATISTICS OF COKE.

#### A.—GENERAL STATEMENT.

1. Name of works.
2. Location of ovens or pits: state; county; town or city.
3. Location of coal mines used to supply coke works: state; county; town or city.
4. Name of individual, firm, or corporation operating coke works.
5. Post-office address.

## B.—CHARACTERISTICS AND STATISTICS OF MINES.

(NOTE.—Under this head, statements concerning the mines used to supply coal to coke works only are to be included. If you operate other mines, or if part of the coal from the mines that supply your coke works goes into the general market, do not include the statistics of these in this report.)

6. Total capital (real and personal) invested in coal works and employed in business.

(NOTE.—In making up this statement the value of coal lands, works, etc., should be estimated at what they would cost in 1880. If coal works are leased, estimate their value as near as may be and include in this answer.)

First. Number of acres of coal land connected with coke works.

Second. Value of same.

Third. Value of buildings connected with coal works, including tipples, etc.

Fourth. Value of machinery, including engines, pumps, fans, locomotives, tracks, cars, etc.

7. Character of coal (bituminous, semibituminous, etc.).  
 8. Kind of entry (slope, drift, shaft).  
 9. Number of headings.  
 10. Stationary engines—number; kind; horsepower.  
 11. Boilers—number; kind.  
 12. Ventilation—number of fans; number of furnaces; number of cubic feet of air passing into mine per minute.  
 13. Pumps—number; kind; gallons of water pumped per day.  
 14. Mine locomotives—number; pit cars, number.  
 15. Miles of railroad track—inside mines; outside mines.  
 16. Number of mules—inside mines; outside mines.  
 17. Value of materials used during twelve months ending June 1, 1880.

*Labor in coal mines.*

18. Total number of employees—16 years old and upwards; under 16 years.  
 19. Total amount of wages and earnings paid all classes of labor at coal mines during the twelve months ending June 1, 1880.  
 20. Periods of payment (that is, every week, every two weeks, every month, etc.).  
 21. Have you a store connected with works?  
 Rates of wages at coal mines:

CLASS.	Number of men.	Number of boys.	How is each class paid—per ton, bushel, car, wagon, etc.	Daily wages paid men.	Daily wages paid boys.	Wages per ton, bushel, car, etc., paid men.	Wages per ton, bushel, car, etc., paid boys.	Average hours' work per day.	Days in operation during year.
Superintendent .....									
Mining overseer or pit boss .....									
Civil engineer .....									
Clerks .....									
Miners on contract .....									
Miners on wages .....									
Inside laborers .....									
Outside laborers .....									
Inside mule drivers .....									
Outside mule drivers .....									
Weighmaster .....									
Checkweighman .....									

NOTE.—Please add other classes of labor and rates paid.

22. Months in operation during the year ending June 1, 1880, reducing part time to full time.  
 23. If idle during any part of the year, what was the cause? And if for several reasons—as strikes, lockouts, low water, light demand, etc.—give number of days idle from each cause.

# 326 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## Product of coal mines.

24. Total amount of coal mined during the twelve months ending June 1, 1880, and used in coke works (tons of 2,000 pounds).
25. Value of same on cars at pit's mouth.
26. Average amount of coal mined by each miner per day during time works were in operation during the twelve months ending June 1, 1880 (tons of 2,000 pounds).
27. Average total amount of coal mined by each miner for the year ending June 1, 1880 (tons of 2,000 pounds).
28. How many pounds of coal to a bushel? How many pounds of coal to a pit car? How many pounds of coal to a wagon?

## C.—CHARACTERISTICS AND STATISTICS OF COKE WORKS.

29. Whole amount of capital invested in coke works and employed in business.  
(NOTE.—In making up this statement estimate the value of works at what they would cost in 1880.)  
Value of buildings.  
Value of ovens.  
Value of machinery, including engines, cars, tracks, etc., and excluding all that is included with coal mines.
30. Total number of ovens or pits built.
31. Number of ovens or pits building.
32. Number of each kind—Beehive built; building; Belgian built; building; other styles built; building; give name of styles other than beehive and Belgian, and number of each; pits or mounds.
33. Is coal washed? If so, give name of washer; number of washers used; number of bushels washed per day; number of gallons of water used in washer per day.
34. Number of coke cars; number of locomotives.
35. Miles of railroad track owned not included in statement of coal works.

## Materials used.

36. Coal charged into ovens during the year ending June 1, 1880 (tons of 2,000 pounds)—  
Washed; value at ovens; unwashed; value at ovens.
37. Fire brick—M; value.
38. Red brick—M; value.
39. Wood—Cords; value.
40. Castings—Tons; value.
41. Total value of above and all other materials used during year.  
(NOTE.—It is not intended to include in this statement new construction, but only such materials as are used in manufacture of coke and for ordinary repairs of ovens.)

## Labor at coke works.

42. Total number of employees—Males 16 years old and upward; females 15 years old and upward; males under 16 years; females under 15 years.
43. Total wages paid for all labor done at coke works during the twelve months ending June 1, 1880.
44. Periods of payment (that is, every week, every two weeks, every month, etc.).
45. Have you a store connected with works?  
Rates of wages at coke works:

CLASS.	Number of men.	Number of boys.	How is each class paid—per ton, bushel, car, wagon, etc.	Daily wages paid men.	Daily wages paid boys.	Wages per ton, bushel, car, etc., paid men.	Wages per ton, bushel, car, etc., paid boys.	Average hours' work per day.	Days in operation during year.
Superintendent .....									
Clerk .....									
Haulers .....									
Coke chargers .....									
Coke drawers .....									
Coke laborers .....									
Forkers .....									
Men at washer .....									

NOTE.—Please add other classes of labor and rates paid.

46. Months in operation during the year ending June 1, 1880, reducing part time to full time.
47. If idle during any part of the year, what was the cause? And if for several reasons—as strikes, lockouts, low water, light demand, lack of transportation, etc.—give number of days idle from each cause.

*Product of coke works.*

48. Total amount of coke produced during the twelve months ending June 1, 1880, in tons of 2,000 pounds.
49. Value of same in cars at ovens.
50. What is the yield of coal in coke—that is, how many pounds of coke do 100 bushels of coal yield? How many bushels of coke do 100 bushels of coal yield?
51. How many pounds of coal to a bushel? How many pounds of coke to a bushel?

## SPECIAL SCHEDULE A.—COTTON MANUFACTURE.

1. Location of mill:
  - State; county; town or city.
  - Name of mill.
  - Name of corporation, if a corporation.
  - Name of treasurer; post-office address.
  - Name of owners, if privately owned; address.
  - Name of agent or superintendent; address.
  - Kind of goods made.
2. Number of producing spindles (omitting twisting and doubling spindles):
  - Mule; frame; total.
3. Number of looms:
 

<ul style="list-style-type: none"> <li>On printing cloth, 26 and 32 inches, inclusive.</li> <li>On other goods, 30 inches or less.</li> <li>On other goods over 30 inches, to 37 inches, inclusive.</li> <li>On other goods over 37 inches, to 45 inches, inclusive.</li> <li>On other goods over 45 inches.</li> <li>On bags or other special fabrics.</li> <li>Total.</li> </ul>	}	What proportion of these looms are on other fabrics than plain, or 3 to 5 leaf twilled goods?
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---	-----------------------------------------------------------------------------------------------
4. Of what materials are the buildings constructed?
5. Kind of power (steam or water):
  - If steam power—Number of boilers; number of engines; total horsepower; quantity of fuel used daily.
  - If water power—On what river or stream; available head of water; kind of wheels and number, dimensions (diameter and breadth); revolutions per minute; total horsepower.
6. Cotton consumed in the last financial year of the establishment ending ....., 1880 (preference to be given to year ending June 1)—bales; pounds.
7. Value at the mill of cotton consumed.
  - N. B.—If the stock used consisted wholly or in part of the waste of other mills, give the quantity and value separate from that of the cotton.
8. Quantities and value at the mill of other materials consumed:
  - Fuel—tons coal; cords wood.
  - Oil—gallons.
  - Starch—pounds.
  - Sundries.
  - Total value of materials used.
9. Product of cloth or other fabrics—pounds; yards.
10. What was the average number of the yarn produced?
  - What were the actual numbers of yarns spun?
11. Number of hands employed in actual production in the factory and cloth room, including overseers and second hands: Class A—Males of 16 years and upward; females of 15 years and upward; males under 16; females under 15.
  - Number of hands employed as mechanics, engineers, firemen, watchmen, and laborers: Class B—Males of 16 years and upward; males under 16.

## 328 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Number of officers (president, treasurer, agent, superintendent, paymaster, and clerks): Class C—Males of 16 years and upward; females of 15 years and upward; males under 16; females under 15.

N. B.—If the cotton fabric or yarn made is a component material in a mixed fabric made by the same establishment, state what the fabric is, but limit the answers to the cotton department.

12. What was the total amount of wages and earnings paid to all persons employed at the works in Classes A and B (omitting Class C) in the last financial year ending .....
13. What was the wholesale value of the product of the works in the principal markets, on the bases of prices obtained by selling agents, without deduction for expenses of selling?  
N. B.—No questions are asked as to general expenses for insurance, taxes, freight of goods to market, interest, depreciation, or cost of sales.
14. Amount of capital invested in works and employed in business. (In making up this statement, the value of the works should be estimated at what they would cost in 1880, if then to be erected, with such deduction for deterioration as may be suitable in the individual case.)
15. Please add any data that may appear to you to be material to a correct census.

### SPECIAL SCHEDULE B.—PRINT WORKS, BLEACHERY, AND DYE WORKS.

1. Location of works:  
State; county; town or city.  
Name of works.  
Name of corporation, if a corporation.  
Name of owner; post-office address.  
Name of treasurer; address.  
Name of agent or superintendent; address.
2. Kind of work done.
3. Number of printing machines.
4. Capacity per year when fully worked:  
In pieces as to print works.  
In yards as to print works.  
In tons as to bleachery and dye works.  
In yards as to bleachery and dye works.
5. Hands employed in the works: Class A—Males of 16 years and upward; females of 15 years and upward; males under 16; females under 15.  
Hands employed outside as watchmen, yard hands, or laborers: Class B—Males of 16 years and upward; males under 16.  
Officers (president, treasurer, agent, superintendent, paymaster, and clerks): Class C—Males of 16 years and upward; females of 15 years and upward.
6. Amount of capital. (In making up this statement the value of the works should be estimated at what they would cost in 1880, if then to be erected, with such deduction for deterioration as may be suitable in the individual case.)  
What was the value of the materials used in your works in the last financial year (not including the value of the gray cloth worked upon) ending ....., 18—(preference to be given to year ending June 1)?
7. What was the total amount of wages and earnings paid to all the persons in Classes A and B employed at the works, omitting officers named in Class C, in your last financial year?
8. What do you estimate the amount of the value of the work done upon the gray cloth or fabric on which you operate; i. e., what is the difference between the value of the fabric as you receive it from your own or from some other factory, and its value at wholesale in the principal markets in which your product is sold by your agent or the agent of those who employ you as converters?
9. Of what material are your works constructed?
10. Kind of power (steam or water):  
If steam power—Number of boilers; number of engines; total horsepower; quantity of fuel used daily.  
If water power—On what river or stream; available head of water; kinds of wheels and number; dimensions (diameter and breadth); revolutions per minute; total horsepower.

## SPECIAL SCHEDULE.—COTTON MANUFACTURE.

*Questions to which answers are desired, though not required by law.*

1. What number of spindles were in operation in your mill June 1, 1840?
2. What has been the increase in your spindles June 1—1840 to 1850; 1850 to 1860; 1860 to 1870; 1870 to 1875; 1875 to 1880?
3. What spindles have you in process of construction June 1, 1880?
4. At what per cent do you estimate the increased production of the spindles of 1880, of the most approved kind, as compared with the spindles of any previous date (giving the date)?
5. What number of looms were in operation in your mill June 1, 1840?
6. What has been the increase in your looms June 1—1840 to 1850; 1850 to 1860; 1860 to 1870; 1870 to 1875; 1875 to 1880?  
In process of addition, 1880?
7. At what per cent do you estimate the increased production of the looms of 1880, of the most approved kind, as compared with the looms of any previous date (giving the date)?
8. What is the per cent of increased production of the whole establishment in 1880, as compared with that of any previous date, in the unit of any given number of spindles, say 1,000 on any given fabric, naming the fabric? (a)
9. What is the per cent in the decrease in the number of operatives required for making the above fabric per 1,000 spindles in 1880 as compared to any previous date (naming the date)? (a)
10. What relation do the wages of 1880 bear to those of any given previous date, both in actual amount and in purchasing power? (a)
11. What number of operatives in picking, carding, spinning, sizing, weaving, and cloth room, did you employ on any given fabric, naming the fabric and the number of yarn:

Whole number.	(Name the fabric.)	Males.	Females.	Mill or mills containing—	
				Spindles.	Looms.
In 1840 .....					
1850 .....					
1860 .....					
1870 .....					
1875 .....					
What number now, 1880 .....					

- If possible, designate the proportion of males and females in answering the above.
12. What were the average earnings of women per week in the following periods:  
1840, in weaving only; in all departments, including weaving.  
1850, in weaving only; in all departments, including weaving.  
1860, in weaving only; in all departments, including weaving.  
1870, in weaving only; in all departments, including weaving.  
1875, in weaving only; in all departments, including weaving.  
1880, in weaving only; in all departments, including weaving.
  13. Are the females in the mills now older or younger, on the average, than at previous dates?
  14. What were the average earnings per week of male operatives, excluding overseers and second hands?

	1840.	1850.	1860.	1870.	1875.	1880.
Common laborers .....						
Mechanics .....						
Picker tenders .....						
Carders .....						
Spinners .....						
Weavers .....						
Dresser or slasher tenders .....						
Yard and watch .....						

a The answer may be in some respects given as a matter of judgment.

### 330 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

15. What were the regular hours of mill work per week—1840, 1850, 1860, 1870, 1875, 1880?
  16. What per cent of your operatives do you now suppose to be American? ..... per cent. Irish? ..... per cent. French-Canadian? ..... per cent. All others? ..... per cent.
  17. Has there been an improvement or otherwise in the dwelling houses of the operatives?
  18. Do operatives now occupy boarding houses or tenements belonging to the establishment to a greater or less extent than at former periods (designating dates, if possible)?
  19. Are the sanitary arrangements of the dwellings better or worse than at former periods?  
If you have any information on sanitary or vital statistics bearing upon factory work, please give it on an appended paper. Also in respect to illiteracy, school regulations, and attendance.
  20. It has been stated that the application of machinery to other employments, such as sewing machines, shoe machinery, and the like, has led to a transfer of the class of operatives who formerly worked in cotton factories to higher-paid occupations, or to conditions of life deemed more desirable by them, and that during the same period the improvements and inventions in cotton machinery have made it possible to instruct and employ in the cotton manufacture a grade of operatives who could not have found employment therein twenty or thirty years since. Is this, in your judgment, true? In other words, has the greater perfection of the machinery created an opportunity for work on the part of operatives of less individual development as to skill and intelligence, and has it thus provided work for those to whom work, except of a common or menial kind, might otherwise have been wanting?
  21. What other suggestions can you make in respect to progress in cotton spinning in the United States, or what other data can you give to work upon? If any, please state them on an appended paper.
  22. What was the possible product per hour or day of ten hours of a hand spinner operating a spinning wheel, on cotton, woolen, or flax yarn, before the introduction of the factory system?
  23. What is the production of a hand spinner at the present date in Canada or elsewhere where hand spinning is still practiced?
  24. What is the largest product within your knowledge of a mule or frame spinner (giving the number of yarn and of spindles) operated ten hours?
  25. What was the possible product of a hand loom on any given fabric before the introduction of the power loom?
  26. What is the present product of a hand loom where still used?
  27. What is the largest product, within your knowledge, of a single weaver, giving description of fabric and number of looms operated ten hours?
- It may, perhaps, be possible for only a few of those to whom this is sent to answer all the questions, but partial answers will be very welcome.

#### SPECIAL SCHEDULE FOR CONSULS.—PRODUCTION OF COTTON AND OF COTTON FABRICS IN FOREIGN COUNTRIES.

WASHINGTON, D. C., November 5, 1879.

To the CONSUL OF THE UNITED STATES,

-----

SIR: From a compilation of the various tables in which the statistics of the production of cotton, and of cotton fabrics are given, it would appear that the total production of cotton in the world approximates 11,000,000 to 12,000,000 bales of American weight; that a little more than 5,000,000 bales are produced in the United States, and that a quantity equal to a little over 6,000,000 bales of American weight is worked in the factories of Europe and America combined, the rest being worked only by hand in Asia, Africa, and elsewhere.

The conditions of the production of hand-spun and hand-woven cotton fabrics, therefore, become questions of grave importance, as it is obvious that there must be a constantly increasing demand for fabrics made upon modern machinery. As an example of the conditions of production in this country it may be stated that the average yearly product of one factory operative manufacturing drills or heavy sheetings, such as are now exported from the United States to China, Africa, and else-

where, is 8,000 pounds, or 22,400 yards, and that the cost of manufacturing, aside from the material used, is within  $1\frac{1}{2}$  cents per yard.

In order that a comparison of the various conditions of production may be made, answers are desired to the questions in the schedule annexed.

1. To what extent is cotton produced in the country or district to which you are accredited?
2. By what machines and in what manner is the lint removed from the seed?
3. What is the average crop of seed cotton per acre?
4. What is the average crop of lint per acre?
5. What use, if any, is made of the seed?
6. What is the general condition, and what are the average wages, of the laborers engaged in raising cotton?
7. In what manner is the cotton worked into yarn or cloth?
8. Please describe the machines.
9. What are the average earnings of those who spin and weave cotton cloth?
10. What is the average product of a spinner working ten hours? In answering please state the ounces or pounds, and if possible, the number of the yarn spun. (The number means the number of skeins of yarn required to weigh 1 pound, each skein measuring 840 yards.)
11. What is the average product of a weaver working ten hours? In answering, please describe the cloth and give its width and weight.
12. In what manner are the goods prepared for use—by bleaching, dyeing, or printing?
13. In what manner or form are the goods made up or worn?
14. What number of yards or pounds of cloth constitutes the average annual consumption of an adult man or woman?
15. To what extent are the inhabitants clothed in fabrics of home manufacture?
16. To what extent have American cotton fabrics been introduced, and how have they proved to be adapted to the customs of the country?

Samples of yarn and cloth are desired to accompany the replies to these questions, and, whenever practicable, photographs or pictures showing the customary manner in which the fabrics are used or worn.

If practicable, three samples of each kind of cloth should be sent, and three pictures or photographs.

Each sample of a cotton fabric should be half a yard or more in length and of the full width of the piece from which it is cut. If the end of the piece is customarily ornamented in colored thread, by a fringe, or by other means, such an end should be sent as the sample.

There should be attached to each sample a ticket, as follows: Place of purchase or manufacture; name of the fabric; customary length; customary width; customary weight; how used; price at wholesale; general remarks.

#### SPECIAL SCHEDULE.—GAS MANUFACTURES.

Name of company.

City or town.

County; state.

Date of organization.

Capital at date of organization: Stock; bonds.

Present capital: Stock; bonds.

Number of shares (present); par value of shares.

State the greatest number of hands employed at any one time during the year.

State number of persons employed in manufacture of gas only (Class A).

State number of hands otherwise employed (Class B).

State the number of gangs of men employed.

Are hands employed both day and night?

State number of hours considered an ordinary day's labor.

State average day's wages for skilled labor.

State average day's wages for an ordinary laborer.

State total amount paid in wages to all persons employed in Classes A and B during the year ending May 31, 1880.

Amount of gas made in 1860.

Amount of gas made in 1870.

Amount of gas made in 1879.

## 332 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Materials used and produced in making gas in 1879 (i. e., for company's fiscal year ending next before June 1, 1880):

Coking coal—tons (2,240 pounds).

Cannel coal—tons (2,240 pounds).

Anthracite coal—tons (2,240 pounds).

Petroleum oil or its products—gallons.

Water used, from which gas is made—in gallons.

Hydrate of lime—bushels.

Oxide of iron—bushels.

Total value of all materials used during the year, including fuel burned.

Coke made, bushels per ton of coal carbonized.

Coke used, bushels per ton of coal carbonized.

Tar made, gallons per ton of coal carbonized.

Ammoniacal liquor made, gallons per ton; strength, ounces.

Total value of all products, including value of gas made, coal tar, coke, ammoniacal water, etc.

Average illuminating power of gas.

Number of consumers, 1860.

Number of consumers, 1870.

Number of consumers, 1879.

Number of street lamps, 1860.

Number of street lamps, 1870.

Number of street lamps, 1879.

Cubic feet consumed in street lamps, 1860.

Cubic feet consumed in street lamps, 1870.

Cubic feet consumed in street lamps, 1879.

Cubic feet of gas consumed in public buildings (i. e., in buildings used by the several departments of city government), 1860.

Cubic feet of gas consumed in public buildings (i. e., in buildings used by the several departments of city government), 1870.

Cubic feet of gas consumed in public buildings (i. e., in buildings used by the several departments of city government), 1879.

Number of hours per annum street lamps are lighted.

Average charge per 1,000 feet to private consumers, 1860.

Average charge per 1,000 feet to private consumers, 1870.

Average charge per 1,000 feet to private consumers, 1879.

Average charge per 1,000 feet to public buildings, 1860.

Average charge per 1,000 feet to public buildings, 1870.

Average charge per 1,000 feet to public buildings, 1879.

Price per annum per street lamp, 1860.

Price per annum per street lamp, 1870.

Price per annum per street lamp, 1879.

Does company or public authority light, extinguish, clean, and repair public lamps?

Number of miles of distributing pipe.

Number of gas holders.

Total capacity of gas holders.

Names of other companies, if any.

What are the rights of gas companies in regard to opening and using streets?

Remarks.

### SPECIAL SCHEDULE.—WINDOW GLASS.

#### CLASSIFICATION OF GLASS WORKS.

For uniformity of returns the following classification of glass works has been adopted and will be preserved in all publications of the tenth census:

I.—Plate-glass factories (including rough and polished plate for window glass and mirrors).

II.—Window-glass factories (including cylinder or sheet window glass).

—Glassware factories (including flint or lead glass, and lime glass, both blown and pressed, lamp chimneys, and flint druggists' ware).

—Green and black glass bottle and green druggists' ware factories.

more than one of the above classes of glass are produced at your works it is added that a separate return of each shall be made on the blanks prepared for a class. If these have not been forwarded, they will be sent on application.

The ton is 2,000 pounds.

## HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 333

The year is from June 1, 1879, to May 31, 1880.

Answers should give condition of works and business and wages paid May 31, 1880.

### General statement:

1. Name of works.
2. Location of factory—state; county; town or city.
3. Name of firm, corporation, or individual, operating factory.
4. Post-office address—state; county; town or city.
5. Total capital (real and personal) invested in works and employed in business.  
(NOTE.—In answering this question give value of land, buildings, etc., at what they would cost in 1880. If factory is leased, estimate its present value, as near as possible, and include value in the answer to this question.)
6. Give date of establishment of works.
7. If incorporated, give date of incorporation.

### Characteristics of factories:

8. Total number of furnaces owned or operated.
9. Kind of furnaces (state whether coal, wood, or gas is used for fuel; if furnace has a distinctive name, give it).
10. Number of pots in each furnace.
11. Number of flattening ovens.
12. Number of monkey ovens.
13. Number of clay-grinding mills.
14. Number of steam engines.
15. Horsepower of each.
16. Number of boilers.
17. Number of horses.
18. Number of mules.
19. Number of wagons.
20. Number of carts.
21. Number of drays.

### Materials used:

(NOTE.—The answers to these questions should cover the year from June 1, 1879, to May 31, 1880, and are intended to include all materials used in that year. They are not expected to include new construction, but only the materials used in the manufacture of window glass and ordinary repairs.)

22. Sand—tons; value.
23. Soda ash (carbonate of soda)—tons; value.
24. Salt cake (sulphate of soda)—tons; value.
25. Salt (chloride of sodium)—tons; value.
26. Quicklime—bushels; value.
27. Limestone—tons; value.
28. Arsenic—pounds; value.
29. Charcoal—bushels; value.
30. Cullet—tons; value.
31. Fire clay or pot clay (American)—pounds; value.
32. Fire clay or pot clay (English)—pounds; value.
33. Fire clay or pot clay (German)—pounds; value.
34. Pots—number; value.
35. Coal—tons; value.
36. Coke—tons; value.
37. Wood—cords; value.
38. Fire brick—M; value.
39. Red brick—M; value.
40. Furnace stone—perches; value.
41. Iron castings—tons; value.
42. Iron, wrought—tons; value.
43. Plaster of paris—tons; value.
44. Lumber (including that in boxes purchased)—M feet; value.
45. Nails—kegs; value.
46. Straw and hay—tons; value.
47. Other materials—value.
48. Total value of above and all other materials, not including additions to works, used during the year ending May 31, 1880.
49. What new construction, in addition to old works, not including ordinary repairs, have you made during the year ending May 31, 1880? Give description and value.

### 334 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

#### Labor:

50. Total number of employees:  
 Number of males 16 years and upward.  
 Number of females 15 years and upward.  
 Number of males under 16 years.  
 Number of females under 15 years.
51. Total amount of wages and earnings paid all classes of labor during the year ending June 1, 1880.
52. Periods of payment (that is, do you pay every week, two weeks, every month, etc.)?
53. Number of months in operation during the year ending May 31, 1880, reducing part time to full time.
54. If idle during the year, what was the cause; and if for several causes, as strikes, no demand, etc., give number of days idle for each cause.
55. Have you a store for supplying operatives in connection with works?

Classes of employees and wages paid the same:

Class.	No. of males 16 years old and upward.	No. of males under 16 years.	No. of females 15 years old and upward.	No. of females under 15 years.	How is each class paid—per day, week, foot, box, etc.? (If rates are too complex to write here, please attach list to the schedule.)	Daily wages or daily earnings of males 16 years old and upward.	Daily wages or daily earnings of males under 16 years.
Managers.....							
Boss blowers.....							
Blowers.....							
Gatherers or tending boys.....							
Master teasers.....							
Master teasers' helpers.....							
Teasers.....							
Lime sifters.....							
Mixers.....							
Batch wheelers or fillers-in.....							
Coal wheelers.....							
Flatteners.....							
Layers-out.....							
Layers-in.....							
Leer tenders.....							
Roller boys.....							
Pot makers.....							
Clay trampers.....							
Boss cutters.....							
Cutters.....							
Packers.....							
Drivers.....							
Laborers.....							
(a)							

a Several blank lines are printed in Schedule.

## Classes of employees and wages paid the same—Continued.

Class.	Daily wages or daily earnings of females 15 years old and upward.	Daily wages or daily earnings of females under 15 years.	Wages per dozen, per foot, per box, etc., paid males 16 years old and upward.	Wages per dozen, per foot, per box, etc., paid males under 16 years.	Wages per dozen, per foot, per box, etc., paid females 15 years old and upward.	Wages per dozen, per foot, per box, etc., paid females under 15 years.	Average number of working hours per day.	Days in operation during the year ending May 31, 1880.
Managers.....								
Boss blowers.....								
Blowers.....								
Gatherers or tending boys.....								
Master teasers.....								
Master teasers' helpers.....								
Teasers.....								
Lime shifters.....								
Mixers.....								
Batch wheelers or fillers-in.....								
Coal wheelers.....								
Flatteners.....								
Layers-out.....								
Layers-in.....								
Leer tenders.....								
Roller boys.....								
Pot makers.....								
Clay trampers.....								
Boss cutters.....								
Cutters.....								
Packers.....								
Drivers.....								
Laborers.....								
(a)								

a Several blank lines are printed in schedule.

NOTE.—Please add other classes of labor and rates paid.

## Product:

56. Total number of boxes of window glass of 50 feet each made during the year ending May 31, 1880.
57. Value of same at works.

## SPECIAL SCHEDULE.—GLASSWARE FACTORIES.

[Inquiries numbered 1 to 7, inclusive, in special schedule "Window glass," are common to this special schedule and are not here reproduced.]

## Characteristics of factories:

- Number of glory-holes.
- Number of presses or pressing machines.
- Number of annealing ovens.
- Number of shops.
- Number of grinding and engraving machines.

[Inquiries numbered 8 to 10 and 13 to 21, inclusive, in special schedule "Window glass," are common to this special schedule and are not here reproduced.]

## Materials used:

- Nitrate of soda—tons; value.
- Sulphate of soda—tons; value.
- Lime—bushels; value.
- Litharge or red lead—pounds; value.
- Pearl ash—pounds; value.
- Manganese—pounds; value.
- Oxide of cobalt—pounds; value.
- Zaffer—pounds; value.
- Beeswax—pounds; value.
- Casks and barrels—number; value.

[Inquiries numbered 22 and 23, and 28 to 46, inclusive, and 48 and 49, in special schedule "Window glass," are common to this special schedule and are not here reproduced.]

# 336 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## Labor:

Number of months in operation during the year ending May 31, 1880, reducing part time to full time:

Months on full time.

Months on three-fourths time only.

Months on two-thirds time only.

Months on one-half time only.

Months idle.

[Inquiries numbered 50 to 52, inclusive, and 54 and 55, in special schedule "Window glass," are common to this special schedule and are not here reproduced.]

Classes of employees and wages paid the same:

CLASS.	Number of males 16 years old and upward.	Number of males under 16 years.	Number of females 15 years old and upward.	Number of females under 15 years.	How is each class paid—per day, week, foot, box, etc.? (If rates are too complex to write here, please attach list to the schedule.)	Daily wages or daily earnings paid males 16 years old and upward.	Daily wages or daily earnings paid males under 16 years.
Manager .....							
Pressers .....							
Finishers .....							
Gatherers .....							
Stickers-up .....							
Cleaning-off boys .....							
Carrying-in boys .....							
Mold holders .....							
Blowers .....							
Cutters .....							
Engravers .....							
Mold makers .....							
Machinists .....							
Mixers .....							
Teasers .....							
Pot fillers .....							
Pot makers .....							
Clay trampers .....							
Packers .....							
Drivers .....							
Laborers .....							
Engineers .....							
(a)							

CLASS.	Daily wages or daily earnings paid females 15 years old and upward.	Daily wages or daily earnings paid females under 15 years.	Wages per dozen, per foot, per box, etc., paid males 16 years old and upward.	Wages per dozen, per foot, per box, etc., paid males under 16 years.	Wages per dozen, per foot, per box, etc., paid females 15 years old and upward.	Wages per dozen, per foot, per box, etc., paid females under 15 years.	Average number of working hours per day.	Days in operation during the year ending May 31, 1880.
Manager .....								
Pressers .....								
Finishers .....								
Gatherers .....								
Stickers-up .....								
Cleaning-off boys .....								
Carrying-in boys .....								
Mold holders .....								
Blowers .....								
Cutters .....								
Engravers .....								
Mold makers .....								
Machinists .....								
Mixers .....								
Teasers .....								
Pot fillers .....								
Pot makers .....								
Clay trampers .....								
Packers .....								
Drivers .....								
Laborers .....								
Engineers .....								
(a)								

a Several blank lines are printed in schedule.

NOTE.—Please add any other classes of labor and rates paid.

**Product :**

State classes and kinds of glassware manufactured, as tableware, tumblers, chimneys, prescriptions, etc.

If engaged in the manufacture of tumblers exclusively or as a specialty, how many gross did you make during the year ending May 31, 1880; value of same?

If engaged in the manufacture of lamp-chimneys exclusively or as a specialty, how many dozen did you make during the year ending May 31, 1880; value of same?

If engaged in the manufacture of flint bottles or prescriptions exclusively or as a specialty, how many gross did you make during the year ending May 31, 1880; value of same?

If engaged in the manufacture of miscellaneous and general tableware or other glassware, give as near as you can—

(1) Number of dozen pieces made during the year ending May 31, 1880.

(2) Number of tons weight made during the year ending May 31, 1880.

(3) Value of entire product of glassware not enumerated and valued under the previous questions under "Product" in this schedule.

NOTE.—In answering the different questions under the head of "Product" in this schedule, please be careful not to report any part of your product twice. The total of your answers to all of these questions should only give the total of product.

**SPECIAL SCHEDULE.—GREEN AND BLACK GLASS BOTTLE FACTORIES.**

[Inquiries numbered 1 to 7, inclusive, in special schedule "Window glass," are common to this special schedule and are not here reproduced.]

**Characteristics of factories:**

Average number of shops worked at each furnace.

Number of glory-holes.

Number of annealing ovens.

Number of grinding machines (for fruit-jar tops, etc.).

[Inquiries numbered 8 to 10 and 13 to 21, inclusive, in special schedule "Window glass," are common to this special schedule and are not here reproduced.]

**Materials used:**

Lime—bushels; value.

Red lead (litharge)—pounds; value.

Black lead—pounds; value.

Cannel coal—pounds; value.

Manganese—pounds; value.

Cobalt—pounds; value.

Zaffer—pounds; value.

Casks and barrels—number; value.

[Inquiries numbered 22 to 25 and 27 to 49, inclusive, in special schedule "Window glass," are common to this special schedule and are not here reproduced.]

**Labor:**

Number of months in operation during the year ending May 31, 1880:

On full time—months.

On three-quarters time—months.

On two-thirds time—months.

On half time—months.

Idle—months.

[Inquiries numbered 50 to 52, inclusive, and 54 and 55, in special schedule "Window glass," are common to this special schedule and are not here reproduced.]

338 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Classes of employees and wages paid the same:

Class.	No. of males 16 years old and upward.	No. of males under 16 years.	No. of females 15 years old and upward.	No. of females under 15 years.	How is each class paid—per day, week, foot, dozen, move, etc.? (If rates are too complex to write here, please attach list to the schedule.)	Daily wages or daily earnings of males 16 years old and upward.	Daily wages or daily earnings of males under 16 years.
Managers.....							
Boss blowers.....							
Bottle blowers.....							
Vial blowers.....							
Demijohn blowers.....							
Carboy blowers.....							
Other blowers.....							
Gatherers or tending boys.....							
Sticker-up boys.....							
Finishers.....							
Carrying-in boys.....							
Laying-up boys.....							
Master teasers.....							
Fillers-in, or helpers.....							
Coal wheelers.....							
Batch wheelers.....							
Teasers.....							
Mixers.....							
Lime sifters.....							
Ware boys.....							
Pot makers.....							
Pot makers' assistants.....							
Clay trampers.....							
Grinders.....							
Boss packers.....							
Demijohn coverers.....							
Packers.....							
(a)							

Class.	Daily wages or daily earnings of females 15 years old and upward.	Daily wages or daily earnings of females under 15 years.	Wages per doz., 100, foot, move, etc., paid males 16 years old and upward.	Wages per doz., 100, foot, move, etc., paid males under 16 years.	Wages per doz., 100, foot, move, etc., paid females 15 years old and upward.	Wages per doz., 100, foot, move, etc., paid females under 15 years.	Average No. of working hours per day.	Days in operation during the year ending May 31, 1880.
Managers.....								
Boss blowers.....								
Bottle blowers.....								
Vial blowers.....								
Demijohn blowers.....								
Carboy blowers.....								
Other blowers.....								
Gatherers or tending boys.....								
Sticker-up boys.....								
Finishers.....								
Carrying-in boys.....								
Laying-up boys.....								
Master teasers.....								
Fillers-in, or helpers.....								
Coal wheelers.....								
Batch wheelers.....								
Teasers.....								
Mixers.....								
Lime sifters.....								
Ware boys.....								
Pot makers.....								
Pot makers' assistants.....								
Clay trampers.....								
Grinders.....								
Boss packers.....								
Demijohn coverers.....								
Packers.....								
(a)								

a Several blank lines are printed in schedule.

NOTE.—Please add other classes of labor and rates paid.

**Product:**

(NOTE.—The answers to the following questions should state the entire product of green and black bottles and green druggists' ware for the twelve months ending May 31, 1880.)

Green and black bottles (above 8-ounce, not including fruit jars or beer bottles), gross.

Beer bottles, gross.

Fruit jars, gross.

Demijohns, gross.

Carboys, number.

Vials (including 8-ounce and under), gross.

Total value of all glass of this grade and these classes made during the year ending May 31, 1880, the value to be computed at the works.

**SPECIAL SCHEDULE.—PLATE GLASS.**

[Inquiries 1 to 7, inclusive, in special schedule—"Window glass", are common to this special schedule and are not here reproduced.]

**Characteristics of factories:**

Number of casting tables.

Number of annealing ovens.

Number of grinding machines.

Number of smoothing machines.

Number of polishing machines.

Number of grinding mills.

[Inquiries numbered 8 to 10 and 14 to 21, inclusive, in special schedule—"Window glass", are common to this special schedule and are not here reproduced.]

**Materials used:**

Mixing sand—tons; value.

Grinding sand—tons; value.

Rouge, value.

Emery, value.

Cotton cloth, value.

Felt, value.

[Inquiries numbered 23 and 24 and 26 to 49, inclusive, in special schedule—"Window glass", are common to this special schedule and are not here reproduced.]

**Labor:**

Number of months in operation during the year ending May 31, 1880, reducing part time to full time:

Months on full time.

Months on three-fourths time only.

Months on two-thirds time only.

Months on one-half time only.

Months idle.

[Inquiries numbered 50 to 52, inclusive, and 54 and 55 in special schedule—"Window glass", are common to this special schedule and are not here reproduced.]

# 340 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Classes of employees and wages paid the same:

Class.	No. of males 16 years old and upward.	No. of males under 16 years.	No. of females 15 years old and upward.	No. of females under 15 years.	How is each class paid—per day, week, foot, box, etc.? (If rates are too complex to write here, please attach list to the schedule.)	Daily wages or daily earnings paid males 16 years old and upward.	Daily wages or daily earnings paid males under 16 years.
Founders .....							
Gas makers .....							
Teemers or pourers .....							
Roller men .....							
Kiln firemen .....							
Furnace men .....							
Grinders .....							
Smoother .....							
Polishers .....							
Mixers .....							
Pot makers .....							
Crocus men .....							
Cutters .....							
Glass packers .....							
Machinists .....							
Blacksmiths .....							
Firemen .....							
Engineers .....							
Carpenters .....							
Bricklayers .....							
Furnace builders .....							
Teamsters .....							
Sand quarrymen .....							
Limestone quarrymen .....							
Mill men .....							
Plaster burners .....							
(a)							

Class.	Daily wages or daily earnings paid females 15 years old and upward.	Daily wages or daily earnings paid females under 15 years.	Wages per dozen, per foot, per box, etc., paid males 16 years old and upward.	Wages per dozen, per foot, per box, etc., paid males under 16 years.	Wages per dozen, per foot, per box, etc., paid females 15 years old and upward.	Wages per dozen, per foot, per box, etc., paid females under 15 years.	Average No. of working hours per day.	Days in operation during the year ending May 31, 1880.
Founders .....								
Gas makers .....								
Teemers or pourers .....								
Roller men .....								
Kiln firemen .....								
Furnace men .....								
Grinders .....								
Smoother .....								
Polishers .....								
Mixers .....								
Pot makers .....								
Crocus men .....								
Cutters .....								
Glass packers .....								
Machinists .....								
Blacksmiths .....								
Firemen .....								
Engineers .....								
Carpenters .....								
Bricklayers .....								
Furnace builders .....								
Teamsters .....								
Sand quarrymen .....								
Limestone quarrymen .....								
Mill men .....								
Plaster burners .....								
(a)								

a Several blank lines are printed in schedule.

NOTE.—Add any other classes of labor and rates paid.

## Product:

- Total number of square feet of plate glass made during the year ending May 31, 1880; value.  
 Total number of square feet of rough plate glass made during the year ending May 31, 1880; value.  
 Total number of square feet of smooth plate glass made during the year ending May 31, 1880; value.  
 Total number of square feet of polished plate glass made during the year ending May 31, 1880; value.

## SPECIAL SCHEDULE.—ICE.

Statistics in relation to the Distribution and Consumption of Ice for the year October 1, 1879, to October 1, 1880, in the city of....., State of....., returned to the Superintendent of Census by.....

1. Distribution to consumers who own their ice-houses or vaults for cold storage:
  - To brewers—tons.
  - To butchers and meat packers—tons.
  - To butter dealers—tons.
  - To transportation for refrigerating purposes, either on shipboard or railway cars—tons.
2. Distribution from carts to private families, hotels, saloons, etc.—tons.
3. Delivered to steamships for consumption on board—tons.
4. Delivered to miscellaneous consumers not above enumerated—tons.
5. Amount of capital employed in the distribution within the city.  
 [Note.—Includes value of carts, horses, implements, etc.]
6. Number of hands employed in distribution.
7. Aggregate amount of wages paid to the same.
8. Subdivision of aggregate distribution in the city (exclusive of amount exported) by months:

Month.....	Total amount of ice sold (tons).	Price by retail per 100 pounds.
1879.		
October.....		
November.....		
December.....		
1880.		
January.....		
February.....		
March.....		
April.....		
May.....		
June.....		
July.....		
August.....		
September.....		

## SPECIAL SCHEDULE.—ICE.

Statistics in relation to the Supply of Ice for the city of....., State of....., from October 31, 1879, to October 1, 1880, furnished to the Superintendent of Census by.....

1. Principal sources of supply:
  - (a) Ordinary.
  - (b) Extraordinary.
2. Average crops secured at the ordinary sources of supply (in tons): ..... tons.
  - (a) Maximum, ..... tons; year.
  - (b) Minimum, ..... tons; year.
3. Wastage in handling and transportation to point of distribution—per cent.
4. Amounts received from points other than the ordinary sources of supply—tons.
  - (a) Maximum, ..... tons; year.
  - (b) Minimum, ..... tons; year.
5. Average annual deliveries from all sources at city of ..... (in tons).
  - (a) Maximum, ..... tons; year.
  - (b) Minimum, ..... tons; year.

## 342 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

6. Average wholesale price "at the bridge," or point of delivery, per ton:
  - (a) Maximum average; year.
  - (b) Minimum average; year.
7. Average amount annually exported, coastwise and to foreign countries, from city of .....; tons:
  - (a) Maximum, ..... tons; year.
  - (b) Minimum, ..... tons; year.
8. Average export price per ton on board:
  - (a) Maximum; year.
  - (b) Minimum; year.
9. Aggregate capital now employed in harvesting and transporting crops to point of distribution.
10. Aggregate number of hands employed in securing and storing crop.
11. Aggregate amount of wages paid to the same.

REMARKS.—The last three queries do not include cutting or securing for private consumption of the parties storing the same.

### SPECIAL SCHEDULE C.—BLAST FURNACES.

[All interrogatories refer to the year embraced between June 1, 1879, and June 1, 1880. All tons to be of 2,000 pounds.]

1. Name of corporation, firm, or individual operating the works.
2. Name of place, county, and state where your works are located.
3. Whole amount of capital (real and personal) invested in the works you operate (whether owned or leased), and in your business.
4. What is the value of your buildings and of your machinery separately—buildings; machinery.
5. Kind of power—steam, water, wind, or hand.
6. If steam power, give the number of boilers; number of engines; total horsepower; and quantity of fuel used daily.
7. If water power, state on what river or stream; available head of water; kind of wheels and number; diameter and breadth of wheels; revolutions per minute; total horsepower.
8. Number of persons employed; males of 16 years and upward; below 16 years; females of 15 years and upward; below 15 years.
9. Total amount paid in wages during the year.
10. Number of months in active operation during the year.
11. Number of completed blast furnace stacks.
12. Total daily capacity, in tons, of melted metal.
13. Name the raw materials used—kind of ore; kind of fuel; kind of flux.
14. Tons of iron ore used; value.
15. Tons of fluxing material used; value.
16. Bushels of charcoal used; value.
17. Tons of anthracite coal used; value.
18. Tons of raw bituminous coal used; value.
19. Tons of coke used; value.
20. Give tons and value of all other materials used in the furnace.
21. Tons of cold-blast charcoal pig iron produced; value.
22. Tons of hot-blast charcoal pig iron produced; value.
23. Tons of anthracite pig iron produced; value.
24. Tons of bituminous coal and coke pig iron produced; value.
25. Tons of mixed anthracite and coke pig iron produced; value.
26. Tons of castings produced direct from the furnace, and not included in the foregoing; value.
27. Value of all other work done, including jobbing and repairing.
28. Average number of hours of labor of your workmen per week.
29. Average wages per day of skilled workmen.
30. Average wages per day of unskilled workmen.
31. How many of your workmen live in their own houses?
32. How many of the workmen ordinarily employed by you are now unemployed through scarcity of work?
33. Please give an account of any strikes which may have occurred in your establishment during the past year, stating the question at issue and the duration and result of the strike, with all facts pertinent thereto.

SPECIAL SCHEDULE D.—ROLLING MILLS.

[Inquiries numbered 1 to 9, inclusive, in special schedule C.—Blast Furnaces, are common to this special schedule and are not here reproduced.]

Number of months in active operation in the year, reducing part time to full time.  
 Number of forge fires.  
 Number of single puddling furnaces, counting each double furnace equal to two single ones.  
 Number of heating furnaces.  
 Number of hammers.  
 Number of trains of rolls.  
 Total daily capacity, in tons, of rolled iron.  
 Name the kinds of raw materials used.  
 Tons of iron ore used; value.  
 Tons of pig iron used; value.  
 Tons of old iron rails used; value.  
 Tons of other old or scrap iron used; value.  
 Tons of hammered ore blooms used; value.  
 Tons of hammered pig or scrap blooms used; value.  
 Tons of purchased muck bar used; value.

[Inquiries numbered 16 to 19, inclusive, in special schedule C.—Blast Furnaces, are common to this special schedule and are not here reproduced.]

Tons and value of each other material used in manufacture.  
 Tons of bar iron produced; value.  
 Tons of rod iron produced; value.  
 Tons of angles, beams, channels, and other structural iron produced; value.  
 Tons of skelp iron produced; value.  
 Tons of rolled-iron car axles produced; value.  
 Tons of hammered-iron car axles produced; value.  
 Tons of iron rails produced; value.  
 Tons of muck bar produced for sale; value.  
 Tons of sheet iron produced; value.  
 Tons of boiler-plate iron produced; value.  
 Tons of nail-plate iron produced; value.  
 Tons of all other plate iron produced; value.  
 Tons of hoop iron produced; value.  
 Tons and value of each other kind of rolled iron produced.  
 Tons and value of each other kind of hammered iron produced.  
 Tons of cut nails produced; value.  
 Tons and value of each other finished product made.  
 All other work done, including jobbing and repairing; value.

[Inquiries numbered 28 to 33, inclusive, in special schedule C.—Blast Furnaces, are common to this special schedule and are not here reproduced.]

SPECIAL SCHEDULE E.—BESSEMER AND OPEN-HEARTH STEEL WORKS.

[Inquiries numbered 1 to 9, inclusive, in special schedule C.—Blast Furnaces, are common to this special schedule and are not here reproduced.]

Number of months in active operation in the year, reducing part time to full time.  
 Number of Bessemer converters, and the maximum capacity of each in tons.  
 Total daily capacity, in tons, of ingots.  
 Number of open-hearth furnaces.  
 Total daily capacity, in tons, of ingots.  
 Number of heating furnaces.  
 Number of trains of rolls.  
 Total daily capacity, in tons, of rolled steel.  
 Number of hammers.  
 Kinds of raw material used.  
 Tons of iron ore used; value.  
 Tons of spiegeleisen and ferro-manganese used; value.  
 Tons of other pig iron used; value.  
 Tons of old steel rails and steel-rail ends used; value.  
 Tons of purchased Bessemer-steel ingots and blooms used; value.  
 Tons of purchased open-hearth steel ingots and blooms used; value.  
 Tons of scrap iron used; value.  
 Tons of scrap steel used; value.

## 344 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Tons of hammered iron-ore blooms used; value.  
Tons of hammered pig and scrap blooms used; value.

[Inquiries numbered 16 to 19, inclusive, in special schedule C.—Blast Furnaces, are common to this special schedule and are not here reproduced.]

Tons and value of each other material used.  
Tons of Bessemer-steel ingots produced; value.  
Tons of open-hearth steel ingots produced; value.  
Tons of Bessemer-steel rails produced; value.  
Tons of open-hearth steel rails produced; value.  
Tons of Bessemer-steel bars produced; value.  
Tons of open-hearth steel bars produced; value.  
Tons of Bessemer-steel rods produced; value.  
Tons of open-hearth steel rods produced; value.  
Tons of Bessemer-steel hoops produced; value.  
Tons of open-hearth steel hoops produced; value.  
Tons of Bessemer-steel structural shapes produced; value.  
Tons of open-hearth steel structural shapes produced; value.  
Tons of Bessemer-steel sheets produced; value.  
Tons of open-hearth steel sheets produced; value.  
Tons of Bessemer-steel plates produced; value.  
Tons of open-hearth steel plates produced; value.  
Tons and value of each other Bessemer-steel product.  
Tons and value of each other open-hearth steel product.  
All other work done, including jobbing and repairing; state value.

[Inquiries numbered 28 to 33, inclusive, in special schedule C.—Blast Furnaces, are common to this special schedule and are not here reproduced.]

### SPECIAL SCHEDULE F.—CRUCIBLE, BLISTER, GERMAN, AND MISCELLANEOUS STEEL WORKS.

[Inquiries numbered 1 to 9, inclusive, in special schedule C.—Blast Furnaces, are common to this special schedule and are not here reproduced.]

Number of months in active operation in the year, reducing part time to full time.  
Number of cementing furnaces.  
Number of pot holes.  
Number of heating furnaces.  
Number of single puddling furnaces.  
Number of trains of rolls.  
Number of hammers.  
Daily capacity, in tons, of ingots or unwrought steel.  
Name the kinds of materials used.  
Tons of iron ore used; value.  
Tons of pig iron used; value.  
Tons of old iron used; value.  
Tons of old steel used; value.  
Tons of hammered iron-ore blooms used; value.  
Tons of hammered pig and scrap blooms used; value.  
Tons of Swedish billets and bars used; value.  
Tons of other billets and bars used; value.

[Inquiries numbered 16 to 19, inclusive, in special schedule C.—Blast Furnaces, are common to this special schedule and are not here reproduced.]

Tons and value of each other material used.  
Tons of crucible cast-steel ingots produced; value.  
Tons of blister and German steel produced; value.  
Tons and value of each other kind of steel produced.  
Tons and value of each other product.  
All other work done, including jobbing and repairing; value.

[Inquiries numbered 28 to 33, inclusive, in special schedule C.—Blast Furnaces, are common to this special schedule and are not here reproduced.]



# 346 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## FOUNDRIES.

*Supplemental schedule for iron foundries, stove works, car-wheel works, pipe foundries, and other establishments which produce cast iron.*

[The census year is from June 1, 1879, to May 31, 1880. All tons must be of 2,000 pounds.]

Materials used.			Cast products made.				
Pig iron (net tons).	Scrap iron (net tons).	Coal (net tons).	Car wheels (net tons).	Railing (net tons).	Hollow ware (net tons).	Malleable-iron castings (net tons).	Hot-air furnaces (net tons).
1	2	3	4	5	6	7	8

Cast products made.									
Cooking ranges (net tons).	Stoves (net tons).	Agricultural castings (net tons).	Architectural castings (net tons).	Machine castings (net tons).	Bridge works (net tons).	Gas and water pipe (net tons).			
9	10	11	12	13	14	15	16	17	18

NOTE.—If your product does not come under any of the classes above, please write its name and give the quantity produced in columns 16, 17, 18, 19, and 20. Give all quantities *by weight* and in tons of 2,000 pounds as far as possible.

## SPECIAL SCHEDULE.—MANUFACTURE OF MIXED TEXTILE GOODS, DYEING AND REFINISHING.

Name of company, corporation, or individual.

Name of mill or factory.

Location—State; county; city or town; street and No.

Name of agent or superintendent; post-office address.

[Inquiries numbered 3 and 4 in general schedule No. 3 are common to this special schedule and are not here reproduced.]

Average number of males employed of 16 years and upward.

Average wages per man per week.

Average number of females employed of 15 years and upward.

Average wages per woman per week.

Average number of children or youths employed.

Average wages of children and youths per week.

State kind and number of all machines used in manufacture.

[Inquiries numbered 8 to 17, inclusive, in general schedule No. 3 are common to this special schedule (with the exception of inquiry 15, which is not asked) and are not here reproduced.]

Materials used in manufacture:

State kind, quantity, and value of raw materials used in your manufacture:

Wool—pounds; value.

Cotton—pounds; value.

Silk—pounds; value.

Value of dyestuffs, chemicals, and oils used in manufacture during the year.

Fuel used in manufacture:

Tons of anthracite coal; value.

Tons of bituminous coal; value.

Cords of wood; value.

Value of any other supplies or materials used during the year.

Total value of all raw materials and supplies used during the year.

## Products:

State kind, amount, quality, and value of goods manufactured by you during the year:

Kinds of goods manufactured.	Amount.	Quality.	Value.
(a)	(a)	(a)	(a)

<sup>a</sup> Several blank lines are printed in schedule.

NOTE.—Dyers and refinishers will reply to the following inquiry, instead of the one immediately preceding:

What do you estimate the amount of the value of the work done upon the yarns or fabrics on which you operate; i. e., what is the difference between the value of the fabric as you receive it and its value at wholesale after your operation?

Total estimated value of work done during the year.

Do you sell your goods, or manufacture on commission?

Number of buildings included in mill or factory.

Materials of which buildings are constructed.

Value of buildings, estimated by what they would have cost if constructed in 1880.

Estimated value of machinery at present time.

## Power used in manufacture:

If water power, state on what river or stream; height of fall, in feet; kind of wheels; number; breadth, in feet; revolutions per minute; horsepower.

If steam power, state number of boilers; number of engines; horsepower.

## SPECIAL SCHEDULE.—NEWSPAPER PRESS AND PUBLISHING INTERESTS. (a)

## BOOK, MAP, AND PAMPHLET PUBLICATION.

1. Name and post-office address of printing or publishing house.
2. Date when it began the printing or publishing business.  
If successor to an earlier house or firm, please state the date when the business originally began, and the original business name.
3. Value of the publications of the house during the census year ending June 1, 1880, in dollars. (b)
4. Number of new books published by the house during the census year. (c)
5. State what number, if any, of these books were for the subscription trade.
6. Number of new editions of previous books of the house or its predecessor.
7. Aggregate number of volumes published by the house during the census year. (c)
8. Classification of the publications of the census year:

NOTE.—These classes are designed to indicate only the grand divisions. Trade publications and other technical books should be classified under miscellaneous. Where the publishers print large numbers of a special work, as a dictionary or prayer book, they will please indicate the title under the proper classification.

A volume of one hundred pages or more, bound or unbound, is adopted as the standard of a book, as distinguished from a pamphlet.

<sup>a</sup> The inquiries relating to newspapers and periodicals at the census of 1850, 1860, and 1870 are contained in the schedule for "Social Statistics."

<sup>b</sup> In publications for the trade, the *trade price* is taken as the basis of value; in publications for private sale or distribution, the *cost of manufacture* is taken as the basis of value.

<sup>c</sup> In asking the number of *books published*, the census office desires to learn the number of distinct titles or works, and not the aggregate of volumes. In asking the number of *volumes published*, the office desires to learn the actual number of volumes printed of all books or titles—the aggregate of all the editions of all the separate works. Questions 4, 9, and 12 and subquestions under 9 and 12 relate only to the number of separate works published; questions 7 and 13 to the number of volumes actually printed by the house. Both books and volumes are desired in (8) classification.

# 348 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## 8. Classification of the publication of the census year—Continued.

	No. of books.	No. of volumes.
a. School and college text-books, including classics.....		
b. Bibles and Testaments.....		
c. Theological and religious, including prayer books.....		
d. History and biography.....		
e. General literature, including art and travels.....		
f. Reference books, including dictionaries, cyclopædias, annuals, gazetteers, directories, etc.....		
g. Prose fiction.....		
h. Poetry and drama.....		
i. Law.....		
j. Medicine.....		
k. Science.....		
l. Juvenile and Sunday-school books.....		
m. Miscellaneous.....		

	In sheets.		In volumes.	
	Number.	Aggregate copies.	Number.	Number of volumes.
Music.....				
	Maps.		Atlases.	
	Number.	Aggregate copies.	Number.	Number of volumes.
Maps and atlases.....				

## 9. Second classification of publications of census year:

- (a) Number of copyrighted books published in census year.
- (b) Number of American books published not copyrighted.
- (c) Number of reprinted books published, including translations not enumerated under *a* or *b*.
10. Number of pamphlets published by house in census year, including almanacs, catalogues, addresses, tracts, proceedings, and miscellaneous, and exclusive of all advertising pamphlets.
11. Aggregate number of copies of above.
12. Total number of books published by the house or its predecessors from the date when it began business to June 1, 1880.
  - (a) Of above, number of original or American books.
  - (b) Of above, number of reprints.
13. Aggregate number of volumes printed by house, or its predecessors, from the date when it began business to June 1, 1880 (approximate). (a)
14. State if the house publishes in the French, German, or other foreign languages:
  - (a) If so, number of books published during census year in French; number of volumes.
  - (b) Number of books published during census year in German; number of volumes.
  - (c) Number of books published during census year in all other foreign languages; number of volumes.
15. State if the house imports foreign books for sale under its imprint. If so, state the number of books thus imported during the census year; number of volumes.
16. State if the publishers do their own printing and bookbinding.
17. If so, number of persons employed in manufacturing departments—Male; female.
18. Amount annually paid in wages.
19. Number, names, and character of presses in use.
20. Horsepower of engines in use.
21. Number of pounds of type in use.
22. Quantity of paper annually used—In reams; by weight.
23. What proportion of the total book composition of the year is stereotyped?
24. If publishers do not do their own printing or bookbinding, please state names and addresses of printing houses or binderies employed.

NOTE.—A favor will be conferred if any member of the firm or house will add to the above statement any suggestions or remarks bearing upon any feature of the publishing business calculated to aid the census office in the compilation of the *statistics of the book-publishing interests of the United States*.

## SPECIAL SCHEDULE.—NEWSPAPER PRESS AND PUBLISHING INTERESTS.

DAILY JOURNALS, INCLUDING WEEKLY, SEMIWEEKLY, OR TRIWEEKLY PAPERS  
CONNECTED WITH THEM.

The publisher will please send to the Superintendent of Census, in inclosed wrapper, one copy of the daily paper and one copy of weekly or other journal connected therewith, of date nearest to July 4, 1880. The journals received in response to this request will be classified, bound, and deposited in the Smithsonian Institution, to constitute a complete and permanent memorial of the newspaper press of the United States.

1. Name of journal and place of publication, with the county and state.
2. State whether morning or evening.
3. State whether a Sunday edition is published.
4. State if a weekly, semiweekly, or triweekly paper is published in connection with the daily.
5. State the general scope and character of the journal.
6. If published in a language other than English, indicate what language.
7. Date of original establishment of the journal.
8. Names of the journals, if any, merged or consolidated with it since its original establishment.
9. Subscription price of daily; weekly; semiweekly; triweekly.
10. Price of each paper per single copy.
11. The average circulation per issue of the daily during the census year ending June 1, 1880—Of the weekly; of the semiweekly; of the triweekly.
12. Aggregate number of copies printed and circulated during census year—Of the daily; weekly; semiweekly; triweekly.
13. State the percentage of the circulation of each which is sold within the city or town of publication.
14. Value of the annual products, in dollars.
15. Total number of persons employed in manufacture—Male; female.
16. Number employed in editorial and reportorial work.
17. Amount annually paid in wages.
18. State the percentage of receipts from advertising and from subscriptions:  
From advertising.  
From subscriptions.
19. Average number of ems of type set to each issue of daily.
20. Number of pounds of type required for uses of the journal.
21. Number of presses in use, with names, character, and capacity of each.
22. Horsepower of engines.
23. Size of sheet and number of pages.
24. Average number pounds of paper used for each edition of daily; weekly; semiweekly; triweekly. Number of reams for each.
25. State if stereotype plates are used in printing.

## SPECIAL SCHEDULE.—NEWSPAPER PRESS AND PUBLISHING INTERESTS.

## JOURNALS AND MISCELLANEOUS PERIODICALS OTHER THAN DAILY.

The publisher will please send to the Superintendent of Census, in the inclosed wrapper, one copy of his journal or periodical of date nearest to July 4, 1880. The newspapers and periodicals received in response to this request will be classified, bound, and deposited in the Smithsonian Institution, to supply a complete and permanent memorial of the periodical press of the United States.

1. Name of publication.
2. Town, county, and state in which published.
3. How often published.
4. State the general purpose and character of the publication.

The following classification is suggested, with the expectation that periodicals not properly coming under either head will indicate their scope and character specifically under Miscellaneous: News and family reading; news and politics; religion and theology, with denominational relations, if any; agriculture, horticulture, stock raising, dairy, etc.; commerce and finance; trade journals generally; insurance, railroads, etc.; general literature, including monthly and quarterly magazines; Sunday newspapers; medicine and surgery; law; science and mechanics;

# 350 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Free Masonry, Odd Fellowship, temperance, etc., including the publications of societies; education and history, including the periodicals of educational and historical societies; society, art, music, and fashion; college and school periodicals; children's periodicals, including Sunday-school papers; miscellaneous.

5. Date when the periodical was established.
6. Give the names of periodicals, if any, consolidated with it since original establishment.
7. Average circulation per issue during census year ending June 1, 1880.
8. Aggregate number of copies printed during census year.
9. What percentage of the circulation is sold within city or town of publication?
10. Subscription price.
11. Price per copy.
12. State the percentage of receipts from advertising and subscriptions:
  - From advertising.
  - From subscriptions.
13. Gross value of the annual product, in dollars.
14. If published in a language other than English, state what language.
15. State if the periodical is regularly illustrated.
16. State whether the publishers do their own printing, in whole or in part.
17. If so, the name, character, and number of presses in use.
18. Nature of power employed, and what horsepower.
19. Average number of ems of type set to each issue.
20. Number of pounds of type required for uses of the periodical.
21. Size of sheet or page, and number of pages.
22. Average number pounds of paper used to each issue; number reams.
23. State whether stereotype plates are used.
24. Number of persons employed in manufacture—Male; female.
25. Number of persons employed solely in editorial work.
26. Amount paid annually in wages.
27. If publishers do not do their own printing, please state name and address of printing house employed.

Publishers of weekly newspapers, in responding to the inquiries of this schedule, will confer a favor by adding in the space below the names of any periodicals that may have been established or suspended within the town or immediate vicinity during the census year ending June 1, 1880.

## SPECIAL SCHEDULE.—STATISTICS OF POWER AND MACHINERY.

Water power of ..... River.

1. Where does it rise?
2. States, counties, and towns through which it flows.
3. Into what does it empty?
4. Distance of first fall from navigable waters.
5. Distance of first fall from the sea.
6. Watershed above first fall.
7. Average rainfall above first fall.
8. Are valleys favorable for reservoirs?
9. Is flow steady or variable?
10. Character of bed of stream.
11. Number of manufacturing towns on stream.
12. General character of manufactures.
13. What sites not occupied are favorable for power?

Flow of stream in cubic feet per minute.		Reservoirs.				Number of falls.	H. P. utilized.	Available H. P.	H. P. not utilized.
		Natural.		Artificial.					
Summer.	Winter.	No.	Area.	No.	Area.				
14	15	16	17	18	19	20	21	22	23

Remarks:

## SPECIAL SCHEDULE.—POWER AND MACHINERY USED IN MANUFACTURES.

Report on the water power of ....., in the county of ....., State of .....

1. On what stream situated?  
If a small stream, state of what river it is a branch, and how far the junction is below the town.
2. What is the name of the next important manufacturing town or city upon the stream, *above*?  
Distance to the same: By road, ..... miles; by the course of the stream, ..... miles.
3. What is the number of dams built across the stream before the last-named place is reached?  
Aggregate area of the ponds and reservoirs thus formed, ..... acres; estimated capacity, ..... cubic feet.
4. Date of construction, length and average height of each dam, the material of which it was built, and approximate cost, as nearly as the same can be estimated.  
First dam: Built in .....; length, ..... feet; average height, ..... feet; built of .....; cost. Available fall of water at nearest mill or factory below the dam, ..... feet.  
Second dam (if any): Built in .....; length, ..... feet; average height, ..... feet; built of .....; cost. Available fall of water at nearest mill or factory below the dam, ..... feet.  
Third dam (if any): Built in .....; length, ..... feet; average height, ..... feet; built of .....; cost. Available fall of water at nearest mill or factory below the dam, ..... feet.
5. What is the character of the bed of the stream as affecting the ease or difficulty of building and maintaining dams?  
What is the character of the banks of the stream from the same point of view?  
Instances of breaking away of dams, if any such have occurred within five years; stating time, cause (so far as known), and resulting loss.
6. Character of the stream: Average width and depth above nearest reservoir, ..... feet wide; ..... feet deep in summer; ..... feet deep in winter. Flow of stream *per minute*: In summer, ..... cubic feet; in winter, ..... cubic feet. Number of days in the year on which water power can be secured full capacity, ..... days; two-thirds capacity, ..... days; one-half capacity, ..... days. Character of the stream as respects liability to heavy floods, or ice-jams, as affecting security of dams.
7. Please give as full a description as possible of the dams immediately at the town or city reported on, with the system of taking water off for use in manufactures; the name of the individual or the title of the corporation having the ownership or control of the water privileges; length and capacity of canals; usual and special rates for water; number and kinds of mills and factories supplied, etc.

## SPECIAL SCHEDULE.—STATISTICS OF WATER POWER.

Dam—Across what stream; at what place; when built; material; cost; length; average height.

Pond—Area or dimensions; average depth.

Length of headrace; head and fall at wheel; horsepower used, water power, full capacity; number of months when you can get full capacity; capacity the rest of the time; kind of mill; steam power used, and whether used all the time.

Does water waste in summer; in winter; number of hours per day run; does water waste at night at low water?

## SPECIAL SCHEDULE.—WATER SUPPLY OF CITIES AND TOWNS.

A copy of the last annual report, or of such reports as may contain a history of the organization and prosecution of your waterworks, and cuts illustrating construction of reservoirs, dams, engines, pumps, etc., will be thankfully received.

1. Is your town supplied with water by waterworks?
2. Name of corporation.
3. Is it a private or municipal corporation?
4. What system is employed?
  - (a) Gravity system.
  - (b) Pumping to distributing reservoir.
  - (c) Pumping to standpipes.
  - (d) Pumping direct into distributing mains.
  - (e) Or combination of any                      b      s.

## 352 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

5. From what source is water obtained?
6. Total area of watershed available.
7. Area and capacity in gallons or cubic feet of reservoir for each district or separate watershed.
8. Please describe briefly the character and dimensions of dams.
9. What was the cost of dam, and of all the reservoir improvements, including gates, gatehouses, etc.?
10. When was water first introduced?
11. Describe briefly the main conduit—length, diameter, or shape of cross-section, and its dimensions, material used, etc.
12. What is the discharging capacity of conduit under the available head, and what is the head?
13. Please describe briefly the distributing reservoir or standpipe.
14. What are the sizes of distributing mains?
15. What is the available head in the town for fountains, private dwellings, etc., under ordinary circumstances?
16. Is the water supply ever deficient, or head ever impaired, so that it will not supply the highest rooms of ordinary dwellings?
17. What total length of distributing mains is now used?
18. How many water takers upon the register?
19. What are the water rates?
20. How many gallons of water are consumed per day, or per head? (Please state if estimated or exactly known.)
21. What was the first cost of the waterworks?
22. What sum is yearly spent in maintenance and repairs (average)?
23. Do you require and use a filtering gallery? What are its principal dimensions? Please describe it briefly.
24. What is the filtering material? How often is cleaning necessary?
25. How many fire-plugs or hydrants? Of whose design or patent?
26. If pumps are required, who designed and built them, when, and where?
27. Are the water-plungers plain or with bucket? What are their numbers, stroke, and diameters?
28. How many strokes of each per minute?
29. What are the dimensions of the pump-barrel?
30. How many hours are the pumps run per day, per week, or per year?
31. How many hours per year are spent in repairs?
32. What is the length and diameter of the force main, and what is the head on the pumps in pounds, or in feet?
33. What kind of water valves are used in the pumps? What their sizes and lifts?
34. Is water or steam used for power in pumping?
35. If water is used, what kind and size of wheel, and how many? Whose design?
36. Under what head of water, at how many revolutions per minute?
37. How many gallons of water are used to lift one gallon to reservoir?
38. If steam is used, what kind and size of boilers, and at what pressures? How many pounds of water are evaporated (average) by one pound of coal? Kind of coal used.
39. Is the engine noncondensing, condensing, compound, or simple? and what the diameters and strokes of the cylinders?
40. How many single strokes per minute?
41. What kind of steam valve is used, and how operated?
42. What is the kind and volume of air-pump and condenser?
43. What was the cost of the engines and pumps?
44. What is the daily duty of the engines?
45. What was the guaranteed duty?
46. If direct pumping into mains is practiced, please state what marked advantages or disadvantages are experienced?
47. Please furnish any information you can in regard to impurities of water used, caused either by factories, or animal or vegetable matters in reservoirs.

### SPECIAL SCHEDULE.—POWER AND MACHINERY USED IN MANUFACTURES.

#### REPORT ON MACHINE TOOLS.

1. What tools are manufactured at your works for working in metals, and what tools for working in wood? What are their sizes and designations? (Please send with answers to above any illustrated catalogues, woodcuts, or photographs which have been made.)
2. What processes have these tools made possible which are impossible to hand labor?
3. To what extent have they replaced hand labor altogether?
4. To what extent have these tools replaced skilled labor by cheaper labor?

5. By what percentage has this cause reduced the cost of manufacture of the articles which these tools turned out?
6. In what respects and to what extent have the tools made at your works improved the quality of work done by them over that done formerly by hand or by old machinery?
7. In what respects and to what extent have these tools increased the quantity of work which can be done in a given time over what was possible by hand or by old machinery?
8. How much have these improvements in quality and quantity reduced the cost of manufacture of the articles which these tools turn out?
9. Describe and explain the special excellencies of the various tools made at your works with respect to—
  - (a) Strength.
  - (b) Stiffness and freedom from vibration.
  - (c) Proportions to resist strain.
  - (d) Simplicity and fewness of parts.
  - (e) Arrangements to prevent and take up wear.
  - (f) Ease and rapidity of adjustment for varying work.
  - (g) Adaptability for various kinds of work by varying power applied, speed used, and the directions of feed.
  - (h) Number of attachments and ease of application to the machine.
10. What improvements have been made at your works upon the tools you manufacture with respect to any of the preceding points?
11. What new tools have your works brought upon the market?
12. What are the numbers of the letters-patent which cover these new tools and improvements?
13. What widths of single or double belting, running at how many feet per minute, are required to run the various sizes of each tool you manufacture?

## SPECIAL SCHEDULE.—SHIPBUILDING.

## IRON VESSELS.

Statistics obtained from ....., builders of iron vessels, at ....., in the county of ....., State of ....., relative to materials, wages, products, and models of vessels for the year November 1, 1879, to November 1, 1880.

[Name:] .....

Post-office address; street and No.; post-office; state.

Name of firm or company.

Capital (real and personal) invested in the business.

Number and tonnage of vessels completed during the year ending May 31, 1880.

Please give full list.

[Inquiries numbered 4 to 9, 13 to 17, and 20 to 29, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

Average day's wages paid to the men in the following branches of the work in the shops and on the ships:

*Wages and cost of production.*

Draftsmen .....	\$.....cts.	Helpers .....	\$.....cts.
Pattern makers .....	\$.....cts.	Plate fitters .....	\$.....cts.
Helpers .....	\$.....cts.	Chippers and calkers .....	\$.....cts.
Molders .....	\$.....cts.	Rivet makers .....	\$.....cts.
Cupola men .....	\$.....cts.	Common laborers .....	\$.....cts.
Heavy forgemen .....	\$.....cts.	Coppersmiths .....	\$.....cts.
Blacksmiths .....	\$.....cts.	Tinsmiths .....	\$.....cts.
Machinists .....	\$.....cts.	Steam fitters .....	\$.....cts.
Helpers .....	\$.....cts.	.....	\$.....cts.
Boiler makers, comprising the following:		.....	\$.....cts.
Riveters .....	\$.....cts.	Ship carpenters and joiners .....	\$.....cts.
Fitters .....	\$.....cts.	Calkers .....	\$.....cts.
Flange turners .....	\$.....cts.	Sawyers .....	\$.....cts.
Chippers .....	\$.....cts.	Helpers .....	\$.....cts.
Heaters .....	\$.....cts.	Machine men .....	\$.....cts.
Holders-on .....	\$.....cts.	Turners .....	\$.....cts.
Frame benders .....	\$.....cts.	Carvers .....	\$.....cts.
Flangers .....	\$.....cts.	Cabinet makers .....	\$.....cts.
Riveters .....	\$.....cts.	Painters .....	\$.....cts.
Holders-on .....	\$.....cts.	Upholsterers .....	\$.....cts.
Heaters .....	\$.....cts.	Riggers .....	\$.....cts.
Drillers .....	\$.....cts.	Boatbuilders .....	\$.....cts.
Punchers .....	\$.....cts.	Spar makers .....	\$.....cts.
Planers .....	\$.....cts.	Sailmakers .....	\$.....cts.
Roller men .....	\$.....cts.	Block makers .....	\$.....cts.
Ship smiths .....	\$.....cts.		

# 354 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Are any of these classes of men required to supply their own tools or helpers?  
 Are any privileges given to the men, such as free rent and wholesale prices at the store, which virtually enhance their wages?  
 What branches of the work are done by contract in preparing the materials or building the vessel?  
 Total expenditure for wages during the year.

## *Materials and product.*

Taking all the vessels completed during the year ending May 31, 1880, what was the total expenditure thereon for—

Materials.	Quantity.	Value.
Pig iron—pounds .....		
Rolled iron and forgings—pounds .....		
Brass—pounds .....		
Steel—pounds .....		
Lumber—feet .....		
Coal—tons .....		
Rigging .....		
Furniture of the ships .....		
Miscellaneous .....		
Labor .....		

Expenditures for jobbing and repairing, namely: Materials; labor.  
 Total value of all materials used during the year ending May 31, 1880.  
 Value of total production of yard (including jobbing and repairing).

## *Models of vessels.*

The mode of admeasurement of vessels for obtaining the register tonnage in use previous to 1864 having affected the width of ships as measured on the beam, and the models in other respects, please state in what respect the new mode of admeasurement governs the form and model of vessels at this time.  
 Please give your ideas as to the type of steam vessels best calculated to prosper in the trade of this country with Europe and with South American countries.  
 What is your opinion of the future of steel in the building of American steamships, and do you consider that metal superior to American rolled iron?  
 Are composite ships economically more useful than iron ships?

## SPECIAL SCHEDULE.—SHIPBUILDING.

### WOODEN VESSELS.

#### *Special schedule to be submitted to experts.*

Statistics obtained from ....., builders of ..... vessels, at ..... in the county of ....., State of ....., relative to materials, wages, and models for the year November 1, 1879, to November 1, 1880.

[Name:] .....

Post-office address; street and No.; post-office; state.

#### *I.—Materials used in the course of construction of wooden vessels.*

1. Please state below the kinds of wood employed in the different parts of the vessels built by you, and the sources of supply.

Parts of vessel.	Kind of wood used.	Sources of supply.
Keelson .....		
Frames .....		
(If steam vessels, specify trusses and frames separately.)		
Frames (steam) .....		
Trusses (steam) .....		
Beams .....		
Knees .....		
Ceiling of hold .....		
Outside planking .....		
Deck planking .....		
Treenails .....		
Blocks .....		
Masts .....		
Spars .....		
Cabins .....		
Staging and other auxiliary purposes not set afloat with vessel .....		

2. Please state the kinds of wood formerly used for any of the purposes above mentioned, with the sources of supply.
3. Where several kinds of wood are now used for the same purposes, please state the relative value of each and the qualities for which each is specially prized.
4. Has any deterioration of quality in wood used been noticed within the last ten or fifteen years? If so, please state the extent thereof and the cause, if known.

#### II.—*Wages and cost of production.*

1. Please state the wages received per day by men in each branch of the work on the vessel, viz:
  - Carpenters.
  - Fasteners.
  - Joiners.
  - Machinists.
  - Blacksmiths.
  - Calkers.
  - Metallars.
  - Spar makers.
  - Riggers.
  - Painters.
  - Sailmakers.
  - Block makers.
2. Which classes of the men are required to supply their own tools, and what is the cost of their kit of tools to them?

Name of trade.	Price per kit of tools.
(a)	(a)

a Several blank lines are printed in schedule.

3. Please state what branches of the work are done by contract, and what does the contractor receive more than the men?
4. Taking all the sailing vessels built by you during the year, please state as follows:
  - Total tonnage of sailing vessels built.
  - Total amount of wages paid for labor during the year.
  - Value of lumber used during the year.
  - Value of copper used during the year.
  - Value of iron used during the year.
  - Value of cordage and sails during the year.
  - Amount paid for outfit during the year.
  - Value of all other materials during the year.
  - Total value of all materials during the year.
5. Taking all the steam vessels built by you during the year, please state as follows:
  - Total tonnage of steam vessels built.
  - Total amount of wages paid for labor during the year.
  - Value of lumber used during the year.
  - Value of copper used during the year.
  - Value of iron used during the year.
  - Value of engines used during the year.
  - Value of rigging used during the year.
  - Value of outfit used during the year.
  - Value of other materials used during the year.
  - Total value of all materials used during the year.

#### III.—*Models.*

1. Please state the effect of the present method of admeasurement on the models of vessels.
2. Are vessels built for speed or capacity now?
3. How have the requirements of modern trade affected the models of vessels?  
Remarks.

**356 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.**

**SPECIAL SCHEDULE.—SHIPBUILDING.**

**WOODEN VESSELS.**

(Individual schedule.)

Products of shipyard in ....., situated in ....., in the county of ....., State of ....., during the twelve months beginning June 1, 1879, and ending May 31, 1880.

(Insert here the name of proprietor, agent, or other officer in charge, with title.)

Street and No.; post-office; state.

Name of proprietor, firm, or company.

Capital (real and personal) invested in the business.

Vessels built during the year:

Sail:

Number.

Tonnage.

Steam:

Number.

Tonnage.

[Inquiries numbered 4 to 17, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

Materials:

Number of feet of hard pine.

Number of feet of soft pine.

Number of feet of white oak.

Number of feet of hackmatack or other wood for knees.

Total number of feet of lumber (including all other kinds used).

Number of pounds of iron.

Number of pounds of copper.

Value of all other materials (including mill supplies and fuel).

Total value of all materials.

Products:

Value of vessels built. (a)

Value of all other products (including jobbing and repairing).

Total value of all products.

[Inquiries numbered 20 to 29, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

Remarks.

**SPECIAL SCHEDULE.—SHIPBUILDING.**

**BOATS, SPARS, AND MASTS.**

(Individual schedule.)

Products of yard in ....., in the county of ....., State of ....., during the twelve months beginning June 1, 1879, and ending May 31, 1880.

(Insert here name of proprietor, agent, or other officer in charge, with title.)

Street and No.; post-office; state.

Name of proprietor, firm, or company.

Name of product (whether boats, spars, or masts).

[Inquiries numbered 3 to 17, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

Materials:

Kind of lumber used.

Number of feet of lumber used.

Value of material (including mill supplies and fuel).

Value of product (including jobbing and repairing).

[Inquiries numbered 20 to 29, inclusive, in general schedule No. 3 are common to this schedule and are not here reproduced.]

Remarks.

---

<sup>a</sup> The value of vessels built means the selling price of the vessels.

## SPECIAL SCHEDULE.—SILK MANUFACTURE (SCHEDULE A).

1. Location of mill or factory: State of; county of; city or town of.
2. Name of mill or factory.
3. Name of corporation, if incorporated; post-office address.  
Name of president; post-office address.  
Name of treasurer; post-office address.
4. If not a corporation, name of firm or individual manufacturer: post-office address.
5. Number of hand looms in use for broad goods; for narrow goods.
6. Number of power looms in use for broad goods; for narrow goods.
7. Number of power looms used in 1875; 1876; 1877; 1878; 1879.
8. Number of Jacquard machines.
9. Number of knitting looms; number of lace machines.
10. Number of sewing machines employed directly and indirectly.
11. Number of spindles—winding, cleaning, and doubling.  
Number of spindles—spinning and twisting.  
Number of spindles—braiding.
12. Amount of raw silk consumed in the year ending May 31, 1880—pounds; value.  
Amount of waste silk consumed in the year ending May 31, 1880—pounds; value.
13. Organzine and tram bought outside and used in manufacture during the year—pounds; value.  
Organzine and tram thrown by others for your mill and used there—pounds; value.
14. Spun silk used in manufacture during the year—pounds; value.
15. Value of dyestuffs, chemicals, and oils used in manufacture during the year—pounds; value.
16. Fuel used during the year:  
Cords of wood—number; value.  
Tons of coal—number; value.
17. Value of any other supplies or materials used during the year.
18. Total value of all raw materials and supplies used during the year.
19. Quantities and values of goods manufactured during the year ending May 31, 1880, as follows:

Description of goods.	Quantity.
Organzine made and used in your factory—pounds.....	
Organzine made but not used in your factory—pounds.....	
Tram made and used in your factory—pounds.....	
Tram made but not used in your factory—pounds.....	
Spun silk—pounds.....	
Sewing silk—pounds.....	
Machine twist—pounds.....	
Fringe silk—pounds.....	
Floss silk—pounds.....	
Dress goods, plain and figured—yards.....	
Satins, plain and figured—yards.....	
Tie silks and scarfs—yards.....	
Millinery silks—yards.....	
Broad goods not above included—yards.....	
Handkerchiefs.....	
Ribbons.....	
Pongees.....	
Laces.....	
Braids and bindings.....	
Fringes.....	
Dress trimmings.....	
Upholstery trimmings.....	
Military trimmings.....	

(a)

a Several blank lines are printed in original.

20. What was the wholesale value of the product of your mill, ending May 31, 1880, in the principal markets, or by selling agents, and without deduction for expenses? (N. B.—No questions are asked as to profit of goods, freight to market, taxes, interest, goods, buildings, or machinery.)

# 358 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

21. Number of buildings included in mill or factory.
22. Material of which buildings are constructed.
23. Total value of buildings, estimated by what they would have cost to construct in 1879.
24. Amount of insurance on buildings.
25. Estimated value of machinery at present time.
26. Amount of insurance on machinery.
27. Has any fire occurred in your factory? If so, state year and month when fire occurred; time of day or night when fire occurred; cause of the fire; value of property at time of the fire; total loss caused by the fire; amount of insurance paid on loss; specify particulars as to raw silk at time of fire—Value; insurance; damage.
28. Is steam or water power used, or both?
29. If steam power, state number of boilers; number of engines; total horsepower.
30. If water power, state on what river or stream; available head of water; kind of wheels and number; breadth of wheels; revolutions per minute; total horsepower.
31. Average rate of wages per operative paid during past year:

Weekly wages of—	Males.		Females.	
	Dollars.	Cents.	Dollars.	Cents.
Raw-silk winder.....				
Raw-silk cleaner.....				
Raw-silk doubler.....				
Raw-silk spinner.....				
Raw-silk twister.....				
Soft-silk winder.....				
Soft-silk spooler.....				
Soft-silk warper.....				
Soft-silk beamer.....				
Soft-silk warp twister.....				
Hand-loom weaver.....				
Power-loom weaver.....				
Lace-machine man.....				
Designer.....				
Card cutter.....				
Dyer.....				
Laborer.....				
Operatives not above specified.....				

32. Number of hands employed in actual production (including overseers and second hands)—Males of 16 years and upward; males below 16 years; females of 15 years and upward; females below 15 years.
33. Number of hands employed as mechanics, engineers, firemen, watchmen, and laborers—Males of 16 years and upward; males below 16 years; females of 15 years and upward; females below 15 years.
34. Give the greatest number of hands employed at any one time during the year.
35. Number of officers (president, treasurer, secretary, resident agent, superintendent, and clerks)—Males of 16 years and upward; males below 16 years; females of 15 years and upward; females below 15 years.
36. Number of hours in the ordinary day of labor—from May to November; from November to May.
37. Total amount of wages, earnings, or salaries paid in conduct of the business, aside from selling, in the past year.
38. Months in operation: On full time—months; on three-quarter time only—months; on half time only—months; idle—months.
39. Total amount of capital invested in works and employed in business, including both fixed and active capital or surplus.

## SPECIAL SCHEDULE.—SILK MANUFACTURE (SCHEDULE B).

1. Name of company, corporation, or individual.
2. Post-office address.
3. Do you sell your goods or manufacture on commission?
4. Total amount of capital invested and employed in business.
5. State the greatest number of hands employed at any one time during the year.
6. Number of males employed under 16 years.  
Average wages per boy per week.

7. Number of males employed of 16 years and upward.  
Average wages per man per week.
8. Number of females employed under 15 years.  
Average wages per girl per week.
9. Number of females employed of 15 years and upward.  
Average wages per woman per week.
10. Number of hours in the ordinary day of labor:  
From May to November; from November to May.
11. Average day's wages for a hand-loom weaver.
12. Average day's wages for other skilled labor.
13. Average day's wages for other labor.
14. Total amount paid in wages during the year.
15. Months in operation:  
On full time—months; on three-quarter time—months; on one-half time—months; idle—months.
16. Number of hand looms.
17. State kind and number of all other machines used in manufacture.
18. State chief materials used in your manufacture, and estimated amount and value of same during the year ending May 31, 1880:  
Fringe silk—pounds; value.  
Floss silk—pounds; value.  
Spun silk—pounds; value.  
Sewing silk—pounds; value.  
Organzine and tram—pounds; value.  
Value of all other materials than the above.
19. State value of goods manufactured by you during the year ending May 31, 1880:  
Fringes.  
Dress trimmings.  
Upholstery trimmings.  
Cords, tassels, passementerie, buttons.  
Woven goods. (Specify kind of goods.)

## SPECIAL SCHEDULE.—SUGAR AND MOLASSES.

[It is the desire of this office to make as careful a study of the manufacture of sugar and molasses from the raw cane in the United States as circumstances will permit. To facilitate this investigation and supply this office with more detailed information in regard to this industry than can be derived from the returns of the enumerators, you are earnestly requested to answer the following questions. \* \* \* In case no books have been kept, approximate figures or carefully prepared estimates will be accepted.]

1. Name of proprietor or lessee.
2. Capital, real and personal, invested.
3. Greatest number of hands employed at any one time during the year. (See note below.)
4. Average number of hands employed—Males above 16 years; females above 15 years; children and youth. (See note below.)
5. Number of hours in the ordinary day of labor.
6. Average day's wages—For a skilled mechanic; for an ordinary laborer.
7. Total amount paid in wages during the year. (See note below.)
8. Number of months in operation—On full time; idle,
9. Value of materials, including mill supplies and fuel. (See note below.)
10. Value of product. (See note below.)
11. Power used in manufacture—Number of boilers; number of engines; horsepower. (See note below.)

## REMARKS ON THE QUESTIONS.

- 3 and 4. Not to include plantation hands.
7. Total amount paid in wages during the year, exclusive of amount paid to plantation hands, which is covered by value of materials (question 9).
- 7, 9, and 10. The amount paid in wages (question 7) and the value of materials (question 9) combined should not equal or exceed the value of the product (question 10).
10. The value of the product means the wholesale price of the goods. The value of cane ground for others, if any, should be included with that ground on personal account in value of materials (question 9) and value of product (question 10).
11. Only serviceable boilers and engines are to be reported.

## SPECIAL SCHEDULE H.—WOOL MANUFACTURE.

1. Location of mill: State of; county of; city or town of.
2. Name of mill.
3. Name of corporation, if a corporation.
4. Name of president; post-office address.
5. Name of treasurer; post-office address.
6. Name of owners, if privately owned; post-office address.
7. Name of agent or superintendent; post-office address.
8. Number of sets of cards; width of same.
9. Daily capacity of same in scoured wool; on the average character of your work—pounds.
10. Number of combing machines of foreign manufacture.
11. Daily capacity of same in scoured wool; on the average of your work—pounds.
12. Number of combing machines of American manufacture.
13. Daily capacity of same in scoured wool; on the average of your work—pounds.
14. Number of broad looms on woolen goods.
15. Number of broad looms on worsted goods.
16. Number of narrow looms on woolen goods.
17. Number of narrow looms on worsted goods.
18. If any hand looms, please to give the number.
19. Number of Brussels power looms.
20. Number of ingrain power looms.
21. Number of knitting machines.
22. Number of knitting looms.
23. Number of sewing machines.
24. Number of woolen spindles.
25. Number of worsted spindles.
26. Quantity of scoured wool (not including waste purchased and shoddy) consumed during the year—pounds.
27. Quantity of foreign wool in condition purchased, consumed during same period—pounds.
28. Quantity of domestic wool in condition purchased, consumed during same period—pounds.
29. Value at the mill of foreign and domestic wool consumed.
30. Quantity of camel's hair and noils consumed—pounds; value.
31. Quantity of mohair and noils consumed—pounds; value.
32. Quantity of buffalo hair consumed—pounds; value.
33. Quantity of hair of other animals—pounds; value.
34. Quantity of cotton used on cards—pounds; value.
35. Quantity of shoddy used, or waste not including that made in mill—pounds; value.
36. Number of pounds of cotton warp used on woolen goods—pounds; value.
37. Number of pounds of cotton warp used on worsted goods—pounds; value.
38. Number of pounds of woolen yarn used not made in mill—pounds; value.
39. Number of pounds of worsted yarn used not made in mill—pounds; value.
40. Number of pounds of worsted yarn made and sold not used at mill—pounds, value.
41. Number of pounds of woolen yarn made and sold not used at mill—pounds; value.
42. Value of chemicals and dyestuffs used.
43. Number of cords of wood used; value.
44. Number of tons of coal used; value.
45. Value of all other materials, including supplies of every name and nature.
46. Value of materials of all kinds.

(NOTE.—In filling the following return, set down all the products of the mill which are intended for sale, whether yarns, hat bodies, hats, knitted, felted, or woven goods; put each general kind by itself, and the particular description in addition.)

Description of goods manufactured.	Quantity manufactured.	Value.
(a)	(a)	(a)

<sup>a</sup> Several blank lines are printed in schedule.

47. Of what are the buildings constructed?
48. Kind of power—steam, water, or both.
49. If steam power, give the number of boilers; number of engines; total horsepower; and quantity of fuel used daily.
50. If water power, state on what river or stream; available head of water; kind of wheels and number; diameter and breadth of wheels; revolutions per minute; total horsepower.
51. Number of hands employed in actual production in the factory and cloth room, including overseers and second hands—Males of 16 years and upward; below 16 years; females of 15 years and upward; below 15 years.
52. Number of hands employed as mechanics, engineers, firemen, watchmen, and laborers—Males of 16 years and upward; below 16 years; females of 15 years and upward; below 15 years.
53. Number of officers (president, treasurer, agent, superintendent, paymaster, and clerk)—Males of 16 years and upward; below 16 years; females of 15 years and upward; below 15 years.
54. What was the total amount of wages, earnings, or salaries paid in conduct of the business, other than selling, in the last financial year ending .....
55. What was the wholesale value of the product of the works in the principal markets, on the basis of prices obtained by selling agents, without deduction for expenses of selling?
56. Amount of capital invested in works and employed in business, including both fixed and active capital of surplus.

(In making up this statement the value of the works should be estimated as nearly as possible at what they would cost in 1880, if then to be erected, with such deduction for deterioration as may be suitable in the individual case.)

### CENSUS OF 1890.

#### GENERAL SCHEDULE No. 3.

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.  
 Industry (not to be filled out by special agent or enumerator).  
 Name of establishment; Street and No.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the establishment covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

*(Read carefully the explanatory notes.)*

NOTE.—The term "Productive Industry" must be understood in its broadest sense to embrace not only all factories and large works, but also the mechanical trades, as blacksmithing, coopering, carpentering, etc. The smallest shop should not be omitted. Enumerators and special agents will take pains to reach all of the productive establishments, large and small, within their districts.

1. Name of corporation, firm, or individual.

NOTE.—In the case of a manufacturer operating establishments located in different cities or towns, a separate return should be made for each establishment.

2. Date when this establishment commenced operations.

If not now operated by original founders, give (a) name of immediate predecessor of present operators, and (b) date when present operators commenced operations if since June 1, 1880.

(a) Name.

(b) Date.

3. Name of business or kind of goods manufactured.

NOTE.—The name of business or the character of principal product should be described here as specifically as possible, as: Sewing machines, corsets, furniture, foundry, machine-shop, coopering, blacksmithing, etc. A detailed statement of kinds and quantities of materials used and goods manufactured should be set forth as fully as possible in answers to questions 7 and 8, respectively.

4. Capital invested (both owned and borrowed):

Value of plant (the value should be estimated at what the works would cost in 1890, if then to be erected, with such allowance for depreciation as may be suitable in the individual case):

Land.

Buildings.

Machinery, tools, and implements.

Total.

# 362 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## 4. Capital invested (both owned and borrowed)—Continued.

### Live capital:

Raw materials on hand.

Stock in process, and finished products on hand.

Cash on hand, bills receivable, unsettled ledger accounts, and sundries not included in any of the foregoing items.

### Total.

Average annual allowances since June 1, 1880, for depreciation of buildings and machinery.

## 5. Miscellaneous items:

Amount paid for rent, power, and heat.

Amount paid for taxes.

Amount paid for insurance.

Amount paid for repairs, ordinary, of buildings and machinery.

Amount paid for commissions and expenses of sales department.

Amount paid for interest on cash used in the business.

Amount paid for all sundries (not reported in any of the foregoing items).

### Total.

## 6. Labor and wages:

NOTE.—Hands employed on piecework and their earnings should be separately reported below. Wages paid should include board or rent furnished as part compensation.

Classes.	Average number employed during the year.	Total amount paid in wages during the year.
Operatives, engineers, and other skilled workmen, overseers, and foremen or superintendents (not general superintendents or managers):		
Males above 16 years.....		
Females above 15 years.....		
Children.....		
Officers or firm members:		
Males.....		
Females.....		
Clerks or salesmen:		
Males above 16 years.....		
Females above 15 years.....		
Children.....		
Watchmen, laborers, teamsters, and other unskilled workmen:		
Males above 16 years.....		
Females above 15 years.....		
Children.....		
Piecework (not included in the foregoing statement):		
Males above 16 years.....		
Females above 15 years.....		
Children.....		
Total.....		

Weekly rates of wages paid and average number of hands employed at each rate (not including those employed on piecework):

Rates per week.	Males above 16 years.	Females above 15 years.	Children.
Under \$5.00.....			
\$5.00 and over, but under \$6.00.....			
6.00 and over, but under 7.00.....			
7.00 and over, but under 8.00.....			
8.00 and over, but under 9.00.....			
9.00 and over, but under 10.00.....			
10.00 and over, but under 12.00.....			
12.00 and over, but under 15.00.....			
15.00 and over, but under 20.00.....			
20.00 and over, but under 25.00.....			
25.00 and over.....			

## 7. Materials used:

NOTE.—Great care should be exercised in answering question 7, especially in the case of small shops, where no book accounts are kept. The cost of superintendence, rent, and other general expenses of a manufacturing establishment are not to be included in materials.

Kinds.	Quantities.	Cost at the factory using them, including freight charges.
(a)	(a)	(a)
Fuel .....		
Mill supplies .....		
All other materials .....		
Total cost of all materials .....		

a Several blank lines are printed in schedule.

## 8. Goods manufactured:

NOTE.—Great care should be exercised in answering question 8, especially in the case of small shops, where no book accounts are kept. The value of the product means the price charged at the shop or factory, not including commissions or expenses of sales department.

Kinds.	Quantities.	Values.
(a)	(a)	(a)
All other products, including amounts received for custom work and repairing .....		
Total value of all products .....		

a Several blank lines are printed in schedule.

## 9. Months in operation:

NOTE.—The entire twelve months of the year should be accounted for in the answers to question 9, thus: 12 months on full time; or, 8 months on full time and 4 months on half time; or, 10 months on full time and 2 months idle.

On full time.

On three-fourths time only.

On one-half time only.

On one-fourth time only.

Idle.

## 10. Number of hours in the ordinary day of labor:

May to November.

November to May.

## 11. Power used in manufacture:

If power is supplied by other establishments, state—

Kind of power supplied; horsepower.

Name of establishment supplying the same.

If steam power is used, state—

Number of boilers.

Number of engines.

Horsepower.

If water power is used, state—

Number of water wheels.

Horsepower.

Number of turbine wheels.

Horsepower.

If other power is used, state—

Kind (electric, gas, or other).

Number of motors.

Horsepower.

## 12. If any colored persons have capital invested in this establishment, state how many and the amount of capital: No.; amount.

# 364 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## SPECIAL SCHEDULE No. 1.—AGRICULTURAL IMPLEMENTS.

State; County; Post-Office; S. D.; E. D. . . . ., Special Agent or Enumerator.  
Name of establishment; street and No.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the establishment covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

(Read carefully the explanatory notes.)

[Inquiries numbered 1 and 2 in general schedule No. 3 are common to this special schedule and are not here reproduced.]

### 3. Kinds of goods manufactured.

NOTE.—The character of the principal product should be described here as specifically as possible. A statement of kinds and quantities of materials used and goods manufactured should be set forth in detail in answers to questions 7 and 8, respectively.

[Inquiries numbered 4 to 6, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

### 7. Materials used:

NOTE.—Great care should be exercised in answering question 7, especially in the case of small establishments where no book accounts are kept. The cost of superintendence, rent, and other general expenses of a manufacturing establishment are not to be included in materials.

Kinds.	Quantities.	Cost at the factory using them, including freight charges.
Lumber.....		
Iron.....		
Steel.....		
Fuel (specify kinds).....		
All other materials.....		
Total cost of all materials.....		

### 8. Goods manufactured:

NOTE.—Great care should be exercised in answering question 8, especially in the case of small establishments where no book accounts are kept. The value of the product means the price charged at the shop or factory, not including commissions or expenses of sales department.

Kinds.	Quantities.	Values.
Seeders and planters:		
Corn planters, hand.....	number	
Corn planters, horse.....	number	
Cotton planters.....	number	
Grain drills.....	number	
Grain sowers.....	number	
Listers.....	number	
Manure spreaders.....	number	
Seed sowers.....	number	
Implements of cultivation:		
Cultivators, small.....	number	
Cultivators, wheeled.....	number	
Harrows, disc.....	number	
Harrows, other than disc.....	number	
Hoes.....	dozens	
Plows, steam.....	number	
Plows, sulky or wheel.....	number	
Plows, walking.....	number	
Rollers.....	number	
Stalk cutters.....	number	
Harvesting implements:		
Grain cradles.....	number	
Harvesters.....	number	
Harvesters, corn.....	number	

## 8. Goods manufactured—Continued.

Kinds.	Quantities.	Values.
<b>Harvesting implements—Continued.</b>		
Harvesters and binders, combined .....	number	
Hay carriers .....	number	
Hay forks, hand .....	dozens	
Hay forks, horse .....	dozens	
Hay loaders .....	number	
Hay rakes, hand .....	dozens	
Hay rakes, horse .....	dozens	
Hay stackers .....	number	
Hay tedders .....	number	
Mowers .....	number	
Mowers and reapers, combined .....	number	
Potato diggers .....	number	
Reapers .....	number	
Scythes .....	number	
Scythe snaths .....	number	
Sickles .....	number	
<b>Seed separators:</b>		
Clover hullers .....	number	
Corn huskers .....	number	
Corn shellers, hand .....	number	
Corn shellers, power .....	number	
Fanning mills .....	number	
Separators .....	number	
Thrashers, horsepower .....	number	
Thrashers, steam power .....	number	
Thrashers and separators, combined .....	number	
<b>Miscellaneous:</b>		
Artesian well-boring tools and castings .....	number	
Binder twine .....	pounds	
Drying trays .....	number	
Cane mills .....	number	
Carts .....	number	
Churns, butter workers, etc .....	number	
Cider and wine mills .....	number	
Cotton presses .....	number	
Dairy machinery .....	number	
Ditching machines .....	number	
Engines and boilers .....	number	
Feed steamers and boilers .....	number	
Fruit evaporators .....	number	
Fruit graders .....	number	
Fruit presses .....	number	
Gardening implements .....	number	
Hay, straw, feed, and ensilage cutters .....	number	
Hay presses .....	number	
Insecticide distributors .....	number	
Lawn mowers .....	number	
Portable sawmills .....	number	
Portable steam engines .....	number	
Pumps .....	number	
Pumps, horse .....	number	
Pumps, steam .....	number	
Road graders .....	number	
Road scrapers .....	number	
Sirup evaporators .....	number	
Straw stackers .....	number	
Wagons .....	number	
Wind engines .....	number	
Windmills .....	number	
Other products (specify kinds):		
[6 blank lines.]		
All other products not specified .....		
Total value of all products .....		

[Inquiries numbered 9 to 12, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## SPECIAL SCHEDULE No. 2.—PAPER MILLS.

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.  
Name of establishment; Street and No.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the establishment covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

# 366 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

(Read carefully the explanatory notes.)

[Inquiries numbered 1 and 2 in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 3. Kinds of goods manufactured.

NOTE.—The character of the principal product should be described here as specifically as possible. A statement of kinds and quantities of materials used and goods manufactured should be set forth in detail in answers to questions 7 and 8, respectively.

[Inquiries numbered 4 to 6, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 7. Materials used:

NOTE.—Great care should be exercised in answering question 7, especially in the case of small establishments where no book accounts are kept. The cost of superintendence, rent, and the other general expenses of a manufacturing establishment are not to be included in materials.

Kinds.	Quantities.	Cost at the factory using them, including freight charges.
Rags, including cotton and flax waste, sweepings, droppings, and flyings	tons	
Old or waste paper	tons	
Manila stock, including jute bagging, rope, waste, threads, etc.	tons	
Straw	tons	
Ground wood pulp	tons	
Soda wood fiber	tons	
Sulphite wood fiber	tons	
Other stock (specify kinds):		
[12 blank lines.]		
China clay or other mineral filling	tons	
Colors	pounds	
Sizing materials		
Chemicals		
Fuel (specify kinds)		
All other materials		
Total cost of all materials		

## 8. Goods manufactured:

NOTE.—Great care should be exercised in answering question 8, especially in the case of small establishments where no book accounts are kept. The value of the product means the price charged at the shop or factory, not including commissions or expenses of sales department.

Kinds.	Quantities.	Value.
Book printing paper	tons	
Cover paper	tons	
News printing paper	tons	
Plate or lithograph paper	tons	
Writing paper, engine sized, or engine sized and tub sized	tons	
Writing paper, animal sized, loft dried	tons	
Envelope paper	tons	
Drawing paper	pounds	
Manila paper	tons	
Bogus manila paper	tons	
Binders' board	tons	
Press and album board	tons	
Leather board	tons	
Trunk board	tons	
Straw wrapping paper	tons	
Straw board, steam or air dried	tons	
Straw board, lined	tons	
Cardboard, ticket board, etc.	tons	
Card middles	tons	
Hanging and curtain paper	tons	
Wood-pulp board	tons	
Wood-pulp board, lined	tons	
Blotting paper	tons	
Carpet-lining paper	tons	
Hardware paper	tons	
Building, roofing, or sheathing paper	tons	

## 8. Goods manufactured—Continued.

Kinds.	Quantities.	Values.
Colored paper (specify kinds) .....	pounds	
Bank-note, bond, and record paper.....	pounds	
Parchment paper .....	pounds	
Wrapping paper (ham, express, tea, etc.).....	pounds	
Tissue paper, white .....	pounds	
Tissue paper, colored .....	pounds	
Tissue paper, manila .....	pounds	
Other paper (specify kinds):		
[1 blank line.]		
Ground wood pulp.....	tons	
Soda wood fiber.....	tons	
Sulphite wood fiber .....	tons	
All other products .....		
Total value of all products.....		

[Inquiries numbered 9 to 11, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

12. Fourdrinier machines: Number; width in inches.  
 13. Cylinder machines: Number; width in inches.  
 14. Beating engines: Number.  
 15. Washing engines: Number.  
 16. If any colored persons have capital invested in this establishment, state how many and the amount of capital: No.; amount.

## SPECIAL SCHEDULE NO. 3.—BOOTS AND SHOES.

(Not to include retail custom work and repairing.)

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.  
 Name of establishment; Street and No.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the establishment covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

(Read carefully the explanatory notes.)

[Inquiries numbered 1 and 2 in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 3. Kinds of goods manufactured.

NOTE.—The character of the principal product should be described here as specifically as possible. A statement of kinds and quantities of materials used and goods manufactured should be set forth in detail in answers to questions 7 and 8, respectively.

[Inquiries numbered 4 to 6, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 7. Materials used:

NOTE.—Great care should be exercised in answering question 7. The cost of superintendence, rent, and other general expenses of a manufacturing establishment are not to be included in materials.

Kinds.	Quantities.	Cost at the factory using them, including freight charges.
Sole leather.....	No. of sides; pounds	
Cowhide .....	No. of sides; sq. feet	
Split leather .....	pounds	
Calf and kip skins .....	pounds	
Goat skins .....	pounds	
All other upper leather.....	No. of sides; sq. feet	
Sheep and leather linings .....	pounds	
Findings.....		
Cut stock, including heels, taps, cut-soles, etc. ....		
Fuel (specify kinds) .....		
All other materials .....		
Total cost of all materials.....		

## 368 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### 8. Goods manufactured:

NOTE.—Great care should be exercised in answering question 8. The value of the product means the price charged at the shop or factory, not including commissions or expenses of sales department.

Kinds.	Quantities.	Values.
Boots and shoes for men, youths, and boys.....	No. of pairs	
Boots and shoes for women, misses, and children.....	No. of pairs	
All other products.....		
Total value of all products.....		

[Inquiries numbered 9 to 12, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

### SPECIAL SCHEDULE No. 4.—LEATHER, TANNED AND CURRIED.

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.  
Name of establishment; Street and No.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the establishment covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

*(Read carefully the explanatory notes.)*

[Inquiries numbered 1 and 2 in general schedule No. 3 are common to this special schedule and are not here reproduced.]

### 3. Kinds of goods manufactured.

NOTE.—The character of the principal product should be described here as specifically as possible. A statement of kinds and quantities of materials used and goods manufactured should be set forth in detail in answers to questions 7 and 8, respectively.

[Inquiries numbered 4 to 6, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

### 7. Materials used:

NOTE.—Great care should be exercised in answering question 7, especially in the case of small establishments where no book accounts are kept. The cost of superintendence, rent, and other general expenses of the establishment are not to be included in materials.

#### IN TANNING.

Kinds.	Quantities.	Cost to the tanner using them, including freight charges.
Hemlock bark.....	cords	
Oak bark.....	cords	
Gambler.....	bales	
Hemlock bark extract.....	barrels	
Oak bark extract.....	barrels	
Sumac.....	tons	
All other tanning materials.....		
Hides tanned for belting leather.....	number	
Hides tanned for harness leather.....	number	
Hides tanned for sole leather.....	number	
Hides tanned for upper leather.....	number	
Hides tanned for all other purposes.....	number	
Calf and kip skins tanned.....	number	
Goat skins tanned.....	number	
Sheep skins tanned.....	number	
All other skins tanned.....	number	
Fuel (specify kinds).....		
All other materials.....		
Total.....		

## 7. Materials used—Continued.

## IN CURRYING.

Kinds.	Quantities.	Cost to the currier using them, including freight charges.
Oil, stearine, degreas, tallow, etc .....	.....	
All other currying materials .....	.....	
Sides of leather curried .....	number	
Calf and kip skins curried .....	number	
Sheep skins curried .....	number	
All other skins curried .....	number	
Fuel (specify kinds) .....	.....	
All other materials .....	.....	
Total .....	.....	

## 8. Goods manufactured:

NOTE.—Great care should be exercised in answering question 8, especially in the case of small establishments where no book accounts are kept. The value of the product means the price charged at the tannery or currying establishment, not including commissions or expenses of sales department.

## TANNED.

Kinds.	Quantities.	Values.
Belting leather tanned .....	sides	
Grain leather tanned .....	sides	
Harness leather tanned .....	sides	
Sole leather:		
Oak leather .....	sides	
Hemlock leather .....	sides	
Union leather .....	sides	
Upper leather tanned .....	sides	
Tanned for all other purposes .....	sides	
Calf and kip skins tanned .....	number	
Goat skins tanned and finished .....	number	
Sheep skins tanned .....	number	
All other skins tanned .....	number	
Splits tanned .....	number	
All other products .....	.....	
Total .....	.....	

## CURRIED.

Kinds.	Quantities.	Values.
Sides of finished leather for all purposes .....	number	
Calf and kip skins finished .....	number	
Sheep skins finished .....	number	
All other skins finished .....	number	
All other products .....	.....	
Total .....	.....	

[Inquiries numbered 9 to 11, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

12. From what source do you obtain hemlock bark?

13. From what source do you obtain oak bark?

14. If any colored persons have capital invested in this establishment, state how many and the amount of capital: No.; amount.

## SPECIAL SCHEDULE No. 5.—LUMBER MILLS AND SAWMILLS.

State; County; Post-office; S. D; E. D. ...., Special Agent or Enumerator.  
Name of establishment; Street and No.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the establishment covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

(Read carefully the explanatory notes.)

[Inquiries numbered 1 and 2 in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 3. Kinds of goods manufactured.

NOTE.—The character of the principal product should be described here as specifically as possible. A statement of kinds and quantities of materials used and manufactured product should be set forth in detail in answers to questions 7 and 8, respectively.

## 4. Capital invested (both owned and borrowed):

In logging:

In timbered land tributary to your mill.

In other timbered land.

Total.

In tools, implements, live stock, etc.

In railways and equipments.

In canals or chutes for transportation of logs.

In river improvements (exclusive of stock in chartered boom companies).

In vessels used for transportation of lumber or logs, including steam tugs, etc.

In saw logs, bolts, hewed timber, ties, posts, etc., on hand (not delivered at mill).

All other capital invested specifically in logging.

Total.

In mill plant (the value should be estimated at what the works would cost in 1890, if then to be erected, with such allowance for depreciation as may be suitable in the individual case):

Sawmill plant:

Land.

Buildings.

Machinery, tools, and implements.

Total.

Planing-mill plant:

Land.

Buildings.

Machinery, tools, and implements.

Total.

Dry-kiln plant.

Total.

Live capital:

Logs and bolts at mill.

Lumber or other product (not planed or finished) on hand.

Dressed lumber, stock in process and remanufactured goods on hand.

Cash on hand, bills receivable, open ledger accounts, and all sundries not included in any of the foregoing items.

Total.

Average annual allowance since June 1, 1880, for depreciation of buildings and machinery.

Average annual allowance since June 1, 1880, for renewal of live stock.

## 5. Miscellaneous items:

Amount paid for rent, power, and heat.

Amount paid for taxes.

Amount paid for insurance.

Amount paid for repairs, ordinary, of buildings and machinery.

Amount paid for commissions and expenses of sales department.

Amount paid for interest on cash used in the business.

Amount paid for all sundries (not reported in any of the foregoing items).

Total.

What area of standing timber owned by you has been burned over since June 1, 1880 (acres)?

## 5. Miscellaneous items—Continued.

Estimated quantity of timber killed by fire (feet B. M.).

Reduction in the value of timber by fire.

## 6. Labor and wages:

Logging:

NOTE.—Hands employed on piecework and their earnings should be separately reported below. Wages paid should include board or rent furnished as part compensation.

Classes.	Average number of hands employed during the year.					Total amount paid in wages during the year.
	White.	Colored.	Indians.	Chinese.	Total.	
Foremen .....						
Hewers .....						
Choppers .....						
Skidders .....						
Teamsters .....						
Cooks .....						
All other employees .....						
Total .....						

Average number of weeks employed during year.

Piecework (not included in foregoing statement):

Number of men.

Kind of labor.

Rate of payment.

Total amount paid for piece or contract work.

Average number of horses in use; cost of keep.

Average number of mules in use; cost of keep.

Average number of cattle in use; cost of keep.

Transportation of logs to mill:

Average number of hands employed during year in transportation of logs to mill.

Average number of weeks employed.

Amount paid for wages (including board).

Lumber mills, sawmills, and planing mills:

NOTE.—Hands employed on piecework and their earnings should be separately reported below. Wages paid should include board or rent furnished as part compensation.

Classes.	Lumber mills and sawmills.		Planing mills.	
	Average number employed during year.	Total amount paid in wages during year.	Average number employed during year.	Total amount paid in wages during year.
Operatives, engineers, and other skilled workmen, overseers, and foremen or superintendents (not general superintendents or managers):				
Males above 16 years .....				
Females above 15 years .....				
Children .....				
Officers or firm members:				
Males .....				
Females .....				
Clerks or salesmen:				
Males above 16 years .....				
Females above 15 years .....				
Children .....				
Watchmen, laborers, teamsters, and other unskilled workmen:				
Males above 16 years .....				
Females above 15 years .....				
Children .....				
Piecework (not included in the foregoing statement):				
Males above 16 years .....				
Females above 15 years .....				
Children .....				
Total .....				

## 372 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### 6. Labor and wages—Continued.

Monthly rates of wages paid and average number of hands employed in all branches at each rate (not including those employed on piecework):

Rates per month.	Males above 16 years.	Females above 15 years.	Children.
Under \$10.00.....			
\$10.00 and over, but under \$12.00 .....			
12.00 and over, but under 15.00 .....			
15.00 and over, but under 18.00 .....			
18.00 and over, but under 20.00 .....			
20.00 and over, but under 25.00 .....			
25.00 and over, but under 30.00 .....			
30.00 and over, but under 35.00 .....			
35.00 and over, but under 40.00 .....			
40.00 and over, but under 50.00 .....			
50.00 and over .....			

### 7. Materials used:

#### Logging:

NOTE.—Great care should be exercised in answering question 7, especially in the case of small mills where no book accounts are kept. The cost of superintendence, rent, and other general expenses of a manufacturing establishment are not to be included in materials.

Kinds.	Quantity (scaled measurement).	Dollars.
Stumpage value of all timber cut during the year.....		
Cost of all supplies consumed, exclusive of board of men and subsistence of cattle, included in wages, where used, including freight charges.....		
Total.....		

#### Sawmills:

Kinds.	Quantity.	Cost at the mill using them, including freight charges.
Logs or bolts (scaled measurement).....	feet B. M.	
Mill supplies (oil, files, belting, emery wheels, saws, etc.).....		
All other materials.....		
Total.....		

#### Planing mills and remanufactures:

NOTE.—The value of lumber used should be its value in the rough state.

Kinds.	Quantities.	Cost at the factory using them, including freight charges.
Rough lumber (planed, dressed, or finished).....	feet B. M.	
Rough lumber (remanufactured into sash, doors, blinds, moldings, boxes, etc.).....	feet B. M.	
Mill supplies (oil, files, belting, emery wheels, saws, etc.).....		
All other materials used in remanufacture.....		
Total.....		

## 8. Goods manufactured:

## Logging:

NOTE.—Measured quantities should be in board measure by the logging scale used.

Classes.	Measured quantity or number of pieces.	Principal variety of timber.	Value delivered at river or railway.
Saw logs for domestic consumption (measured quantity) .....	feet B. M.		
Telegraph poles .....	number		
Fence posts .....	number		
Railway ties .....	number		
Piling .....	pieces		
Hewed timber (measured quantity) .....	feet B. M.		
Round logs for export (measured quantity) .....	feet B. M.		
All other products .....			
Total value of all products in the forest .....			

## Sawmill products:

NOTE.—The value of the product means the price charged at mill, not including commissions or expenses of selling.

Classes.	Quantity.	Principal variety of timber.	Value.
Sawed lumber .....	feet B. M.		
Bobbin and spool stock .....	feet B. M.		
Furniture stock .....	feet B. M.		
Carriage and wagon stock .....	feet B. M.		
Agricultural implement stock .....	feet B. M.		
Pickets or palings .....	feet B. M.		
Shingles .....	No. of 1,000		
Staves .....	pieces		
Heading .....	sets		
All other products, including amounts received for custom sawing and repairing .....			
Total value of all products .....			

## Planing mills and remanufactures:

Gross value of finished lumber, flooring, ceiling, etc.

Gross value of remanufactured products (specify kinds).

Total.

## 9. Months in operation:

NOTE.—The entire twelve months of the year and each branch of the industry should be accounted for in the answers to questions 9, thus: 12 months on full time; or, 8 months on full time and 4 months on half time; or, 10 months on full time and 2 months idle.

	Lumber mills and sawmills.	Planing mills.
On full time .....		
On three-fourths time only .....		
On one-half time only .....		
On one-fourth time only .....		
Idle .....		

[Inquiries numbered 10 and 11 in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 12. Transportation of logs:

How are logs transported to mill?

Quantity transported during year (feet).

Average cost of transportation per 1,000 feet, including charges for booming, sorting, storage, etc.

Miles of logging railway owned.

Number of engines owned.

Number of cars owned.

Gauge of road (feet, inches)

## 374 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### 12. Transportation of logs—Continued.

Length of canals or chutes used for transportation of logs.

Amount paid for supplies, repairs, etc.

Amount paid to boom companies or contractors for transportation and care of logs.

Amount paid for all other expenses incurred in the transportation of logs (not included in labor and wages or the foregoing questions).

Total amount paid.

### 13. Timbered land or standing timber:

NOTE.—If timbered land or standing timber is owned in different states, the answers to the following questions must state the area, principal variety, average product per acre, and average value of stumpage specifically for each state.

What is the area in acres of timbered land or standing timber owned by you?

Name of State where located.	Principal variety of timber.	Area in acres.	Average product per acre of merchantable timber (feet, board measure).	Average value per 1,000 feet (board measure).
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

### 14. Sawing machinery:

Of what does your sawmill consist—

Number of gangs.

Number of saws in gangs.

Number of circular mills for sawing logs.

Number of muley-saw mills for sawing logs.

Number of band-saw mills for sawing logs.

### 15. If any colored persons have capital invested in this establishment, state how many and the amount of capital: No.; amount.

## SPECIAL SCHEDULE No. 5a.—TIMBER PRODUCTS.

(Not to include lumber mills and sawmills.)

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.

Name of establishment; street and No.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the establishment covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

(Read carefully the explanatory notes.)

NOTE.—This schedule (No. 5a) should be presented to all operators engaged in productive industry in forest growth which does not come within the scope of the schedule for agriculture, and whose operations are not connected with lumber mills or sawmills.

#### 1. Name of corporation, firm, or individual.

NOTE.—Where operations are conducted in different counties a separate return should be made for each county.

#### 2. Date when present operators commenced business.

#### 3. Kinds of goods manufactured.

NOTE.—The character of the principal product should be described here as specifically as possible. A statement in detail of timber used and product manufactured should be set forth as fully as possible in answers to questions 7 and 8, respectively.

#### 4. Capital invested (both owned and borrowed):

Timbered land or standing timber.

Tools and implements, live stock, etc.

Logging railways and equipment.

Canals or chutes for transportation of logs, etc.

River improvements (exclusive of stock in chartered boom companies).

Vessels used for transportation of product (including steam tugs).

All other items of investment in plant.

Total.

## 4. Capital invested (both owned and borrowed)—Continued.

Live capital:

Value of product on hand.

Cash on hand, bills receivable, unsettled ledger accounts, and sundries not included in the foregoing items.

Total.

Average annual allowance since June 1, 1880, for renewal of live stock.

## 5. Miscellaneous items:

Amount paid for rent (not to include cost of stumpage).

Amount paid for taxes.

Amount paid for insurance.

Amount paid for repairs, ordinary, of buildings and other plant.

Amount paid for commissions and expenses of sales department.

Amount paid for interest on cash used in the business.

Amount paid for all sundries (not reported in any of the foregoing items).

Total.

## 6. Labor and wages:

NOTE.—Hands employed on piecework and their earnings should be separately reported below. Wages paid should include board or rent furnished as part compensation.

Classes.	Average number of hands employed during the year.					Total amount paid in wages during the year.
	White.	Colored.	Chinese.	Indians.	Total.	
Engineers, blacksmiths, and other skilled workmen, overseers, and foremen or superintendents (not general superintendents or managers).....						
Officers or firm members.....						
Hewers .....						
Choppers.....						
Skidders .....						
Teamsters.....						
Cooks and other employees:						
Males above 16 years.....						
Females above 16 years.....						
Children .....						
Piecework (not included in the foregoing statement):						
Males above 16 years.....						
Females above 16 years.....						
Children .....						
Total.....						
Average number of animals employed during the year.						Cost of keep during the year.
Horses .....						
Mules .....						
Cattle .....						
Total .....						

Monthly rates of wages paid and average number of hands employed at each rate (not including those employed on piecework):

Rates per month.	Males above 16 years.	Females above 15 years.	Children.
Under \$10.00.....			
\$10.00 and over, but under \$12.00.....			
12.00 and over, but under 15.00.....			
15.00 and over, but under 18.00.....			
18.00 and over, but under 20.00.....			
20.00 and over, but under 25.00.....			
25.00 and over, but under 30.00.....			
30.00 and over, but under 35.00.....			
35.00 and over, but under 40.00.....			
40.00 and over, but under 50.00.....			
50.00 and over.....			

# 376 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## 7. Materials used:

NOTE.—Great care should be exercised in answering question 7, especially in the case of small operators who keep no book accounts. The cost of superintendence, rent, and other general expenses of a manufacturing establishment are not to be included in materials. Cost at the place of growth means the cost of stumpage or other prime cost of material before any labor has been expended.

Variety of timber cut.	Quantities in cords or in feet (board measure).	Cost at the place of growth.
(a)	(a)	(a)
Supplies used, exclusive of those for board of men (when included as wages) or for keep of horses and cattle.		
All other materials .....		
Total cost of all materials .....		

a Several blank lines are printed in schedule.

## 8. Goods manufactured:

NOTE.—Great care should be exercised in answering question 8, especially in the case of small operators who keep no book accounts. The value of the product means the price charged at the point of production, not including commissions or expenses of sales department.

Kinds.	Quantities.	Values.
Basket stock .....		
Cooperage stock .....		
Excelsior stock .....		
Fence posts .....		
Fence rails .....		
Hop poles .....		
Hoop poles and hoops .....		
Hewed timber .....		
Hardwood and other logs cut for export .....		
All logs for domestic manufacture .....		
Handle stock .....		
Hemlock bark for tanning .....		
Oak bark for tanning .....		
Piles .....		
Paving stock .....		
Pulp stock .....		
Railway ties .....		
Rived or split shingles .....		
Resin .....		
Ships' masts and spars .....		
Ships' knees .....		
Stave stock .....		
Tar .....		
Turpentine .....		
Telegraph poles .....		
Wheel stock .....		
All other products .....		
Total value of all products .....		

## 9. Duration of labor :

Season.	Number of hours in the ordinary day of labor.	Number of weeks in operation.
From May to November .....		
From November to May .....		

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 377

## 10. Timbered land or standing timber:

NOTE.—If timbered land or standing timber is owned in different states, the following should contain a specific statement for each state.

Name of State where located.	Principal variety of timber.	Area in acres.	Average product per acre of merchantable timber (per 1,000 feet, B. M.).	Average value per 1,000 feet (board measure).
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

## 11. Damage to standing timber by fire:

NOTE.—Answers to this question must cover the time since June 1, 1880, as nearly as quantity and damage can be estimated.

Name of State where located.	Area in acres.	Estimated quantity killed by fire.	Loss by fire (reduction in value of burned timber).
(a)	(a)	(a)	(a)
Total .....	.....	.....	.....

a Several blank lines are printed in schedule.

## 12. If any colored persons have capital invested in this establishment, state how many and the amount of capital: No.; amount.

### SPECIAL SCHEDULE No. 5b.—LUMBER MILLS AND SAWMILLS: INCORPORATED BOOM COMPANIES.

State; County; Post-office; S. D.; E. D.

Name of company.

The period to be covered by this return is the year beginning January 1, 1889, and ending December 31, 1889. If, however, the fiscal year of the establishment covers a different period, the return may be for the fiscal year which most nearly conforms to the year above noted.

(Read carefully the explanatory notes.)

1. Name of corporation.
2. Date of incorporation.
3. Names of streams or waters improved.
4. Amount of capital stock: Number of shares; amount actually paid in per share.
5. Capital invested (both owned and borrowed):

Plant:

Timbered land.  
All other land.  
Buildings.  
River improvements.  
All other items of investment in plant.  
Total.

Live capital:

Vessels used for transportation of lumber or logs, including steam tugs, etc.  
Booms, chains, and supplies.  
Tools, implements, and live stock.  
All sundries not included in any of the foregoing items.  
Total.

Total capital invested.

## 6. Miscellaneous items:

Amount paid for land damages.  
Amount paid for other damages.  
Amount paid for taxes.  
Amount paid for insurance.  
Amount paid for all sundries of annual expense not elsewhere reported.  
Total.

# 378 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## 7. Labor and wages:

River improvements and repairs to works:

NOTE.—Hands employed on piecework and their earnings should be separately reported below. Wages paid should include board or rent furnished as part compensation. Care must be taken to properly divide the labor and wages as actually expended under the respective heads.

Classes.	Average number of hands employed during the year.					Total amount paid in wages during the year.
	White.	Colored.	Indians.	Chinese.	Total.	
Engineers, blacksmiths, and other skilled workmen, overseers, and foremen or superintendents (not general superintendents or managers).....						
Officers and clerks.....						
Laborers and other unskilled workmen.....						
Total.....						

Average number of weeks employed during year.

Piecework (not included in foregoing statement) :

Number of men.

Nature of employment.

Rate of payment.

Total amount paid for piece or contract work

Average number of horses in use; cost of keep.

Average number of mules in use; cost of keep.

Average number of cattle in use; cost of keep.

Transportation and care of logs:

Average number of hands employed during year in transportation and care of logs, timber, etc.

Average number of weeks employed.

Amount paid for wages (including board).

## 8. Number of hours in the ordinary day of labor:

May to November.

November to May.

## 9. Materials used:

Variety of timber cut.	Quantities in cords or in feet (board measure).	Cost where used.
(a)	(a)	(a)
Supplies used, exclusive of those for board of men (when included as wages) or for keep of horses and cattle.....		
All other materials.....		
Total cost of all materials.....		

a Several blank lines are printed in schedule.

## 10. Value of improvements and repairs made during year.

11. Quantity of logs, timber, etc., handled and delivered during year (feet).

12. Average number of pieces to equal 1,000 feet (pieces).

13. Average tolls per 1,000 feet charged for transportation.

14. Average tolls per 1,000 feet charged for improvements.

15. Average tolls per 1,000 feet charged for storage, assorting, and delivery.

16. Timbered land or standing timber:

NOTE.—If timbered land or standing timber is owned in different states, the following should contain a specific statement for each state.

Name of State where located.	Principal variety of timber.	Area in acres.	Average product per acre of merchantable timber (per 1,000 feet, B. M.).	Average value per 1,000 feet (board measure).
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

## 17. Damage to standing timber by fire:

NOTE.—Answers to this question must cover the time since June 1, 1880, as nearly as quantity and damage can be estimated.

Name of State where located.	Area in acres.	Estimated quantity killed by fire.	Loss by fire (reduction in value of burned timber).
(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

## SPECIAL SCHEDULE No. 5c.—TIMBER PRODUCTS: TURPENTINE, RESIN, AND TAR.

State; County; Post-office; S. D.; E. D.; ....., Special Agent or Enumerator.  
Name of establishment; Location of works.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If however, the fiscal year of the establishment covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

(Read carefully the explanatory notes.)

NOTE.—This schedule (No. 5c) should be presented to all operators engaged in working turpentine orchards or the distillation of crude turpentine.

## 1. Name of corporation, firm, or individual.

NOTE.—Where operations are conducted in different counties, a separate return should be made for each county.

## 2. Date when present operators commenced business.

## 3. Character of operations:

- (a) Working of turpentine orchards only.
- (b) Working of turpentine orchards and operation of distillery.
- (c) Operation of distillery only.

NOTE.—The character of the operations should be described here as specifically as possible. A statement in detail of materials used and product manufactured should be set forth as fully as possible in answers to questions 7 and 8, respectively.

## 4. Capital invested (both owned and borrowed):

Timbered land or standing timber.  
Tools and implements, live stock, etc.  
All other items of investment in plant.  
Total.

## Live capital:

Value of product on hand.  
Cash on hand, bills and accounts receivable, and sundries not included in the foregoing items.  
Total.

NOTE.—The answers to questions under the heads numbered 5, 6, and 7 should cover the entire cost of the product reported in replies to questions under the head numbered 8. Replies should be made to all questions which are applicable to the operations reported.

## 5. Miscellaneous items:

Amount paid for rent (to include amount paid for use of timber).  
Amount paid for taxes.  
Amount paid for insurance.  
Amount paid for repairs, ordinary, of buildings and other plant.  
Amount paid for commissions and expenses of sales department.  
Amount paid for interest on cash used in the business.  
Amount paid for distilling.  
Amount paid for all sundries (not elsewhere reported).  
Total.

# 380 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## 6. Labor and wages:

NOTE.—Hands employed on piecework and their earnings should be separately reported below. Wages paid should include board or rent furnished as part compensation.

Classes.	Average number of hands employed during the year.			Total amount paid in wages during the year.
	White.	Colored.	Total.	
Coopers, stillers, and other skilled workmen, overseers, and foremen or superintendents (not general superintendents or managers) .....				
Officers or firm members .....				
Chippers .....				
Dippers .....				
Teamsters .....				
Piecework (not included in the foregoing statement):				
Males above 16 years .....				
Females above 15 years .....				
Children .....				
Total .....				

Average number of animals employed during the year.			Cost of keep during the year.
Horses .....	number		
Mules .....	number		
Cattle .....	number		
Total .....			

Monthly rates of wages paid and average number of hands employed at each rate (not including those employed on piecework):

Rates per month.	Males above 16 years.	Females above 15 years.	Children.
Under \$10.00 .....			
\$10.00 and over, but under \$12.00 .....			
12.00 and over, but under 15.00 .....			
15.00 and over, but under 18.00 .....			
18.00 and over, but under 20.00 .....			
20.00 and over, but under 25.00 .....			
25.00 and over, but under 30.00 .....			
30.00 and over, but under 35.00 .....			
35.00 and over, but under 40.00 .....			
40.00 and over, but under 50.00 .....			
50.00 and over .....			

## 7. Materials used:

NOTE.—Replies under this head should only include materials actually used in the manufacture of the products reported.

Kinds of material.	Quantity.	Cost.
Crude turpentine purchased .....	barrels	
Serape turpentine purchased .....	barrels	
Glue .....	pounds	
Cotton batting .....	pounds	
Wood .....	cords	
Spirit barrels purchased .....	number	
Resin barrels purchased .....	number	
Iron hoops and rivets .....	pounds	
Staves and heading .....		
All other materials .....		
Total cost of all materials .....		

## 8. Goods manufactured:

NOTE.—Great care should be exercised in answering question. The value of the product means the net price obtained at the point of production. Operators

## 8. Goods manufactured—Continued.

of distilleries should not report the value of product refined for customers, but report on line number 7 the quantity of custom work and the amount received therefor.

On line number 1 only report the number and value of barrels manufactured which have not been filled and are not included in the value of other products. Operators who hire distilling should report on lines numbered 3 and 4 only such crude or scrape turpentine as has been sold or kept in the crude state.

Kinds of product.	Quantity.	Value.
(1) Barrels manufactured.....	number	
(2) Resin.....	barrels	
(3) Scrape turpentine.....	barrels	
(4) Crude turpentine.....	barrels	
(5) Spirits of turpentine.....	barrels	
(6) Tar.....	barrels	
(7) Amount received for custom distilling.....	barrels	
(8) All other products.....	barrels	
Total value of all products.....		

## 9. Turpentine orchards:

Average number of boxes in use.

Number of crops per year (10,000 boxes per crop).

Average number of barrels per crop.

## 10. Duration of labor:

Season.	Number of hours in the ordinary day of labor.	Number of weeks in operation.
From May to November.....		
From November to May.....		

## 11. Timbered land or standing timber:

NOTE.—If timbered land or standing timber is owned in different states, the following should contain a specific statement for each state. By the term "merchantable timber" is meant standing timber which can be manufactured into lumber fit for market. The value to be stated is the value per 1,000 feet in the tree as growing timber for manufacture into lumber.

Name of State where located.	Principal variety of timber.	Area in acres.	Average product per acre of merchantable timber (per 1,000 feet, B. M.).	Average value per 1,000 feet (board measure).
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

## 12. Damage to standing timber by fire:

NOTE.—Answers to this question must cover the time since June 1, 1880, as nearly as quantity and damage can be estimated.

Name of State where located.	Area in acres.	Estimated quantity killed by fire.	Loss by fire (reduction in value of burned timber).
(a)	(a)	(a)	(a)
Total.....			

a Several blank lines are printed in schedule.

## 13. If any colored persons have capital invested in this establishment, state how many and the amount of capital: No.; amount.

## 382 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### SPECIAL SCHEDULE No. 6.—BRICK YARDS.

State; County; Post-office; S. D.; E. D. . . . ., Special Agent or Enumerator.  
Name of establishment; Street and No.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the establishment covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

(Read carefully the explanatory notes.)

[Inquiries numbered 1 and 2 in general schedule No. 3 are common to this special schedule and are not here reproduced.]

#### 3. Kinds of goods manufactured.

NOTE.—The character of the principal product should be described here as specifically as possible. A statement of kinds and quantities of materials used and goods manufactured should be set forth in detail in answers to questions 7 and 8, respectively.

[Inquiries numbered 4 to 6, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

#### 7. Materials used:

NOTE.—Great care should be exercised in answering question 7, especially in the case of small establishments where no book accounts are kept. The cost of superintendence, rent, and other general expenses of a manufacturing establishment are not to be included in materials.

Kinds.	Quantities.	Cost at the factory using them, including freight charges.
Wood .....	cords	
Coal .....	tons	
Oil .....	gallons	
Natural gas .....	number of 1,000 ft.	
All other materials .....		
Total cost of all materials .....		

#### 8. Goods manufactured:

NOTE.—Great care should be exercised in answering question 8, especially in the case of small establishments where no book accounts are kept. The value of the product means the price charged at the shop or factory, not including commissions or expenses of sales department.

Kinds.	Quantities.	Values.
Common brick .....	number of thousand	
Fire brick .....	number of thousand	
Pressed brick .....	number of thousand	
Tile .....		
Sewer pipe .....		
All other products .....		
Total value of all products .....		

[Inquiries numbered 9 to 12, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

### SPECIAL SCHEDULE No. 7.—FLOUR AND GRIST MILLS.

State; County; Post-office; S. D.; E. D. . . . ., Special Agent or Enumerator.  
Name of establishment; Street and No.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the establishment covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 383

(Read carefully the explanatory notes.)

[Inquiries numbered 1 and 2 in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 3. Is your mill custom, merchant, or exchange?

Proportion of each class.

NOTE.—A statement of kinds and quantities of materials used and goods manufactured should be set forth in detail in answers to questions 7 and 8, respectively.

[Inquiries numbered 4 to 6, inclusive, in general schedule No. 3 are common to this special shedule and are not here reproduced.]

## 7. Materials used:

NOTE.—Great care should be exercised in answering question 7, especially in the case of small mills where no book accounts are kept. The cost of superintendence, rent, and other general expenses of the establishment are not to be included in materials.

Kinds.	Quantities.	Cost at the mill using them, including freight charges.
Wheat .....	bushels	
Corn .....	bushels	
Rye .....	bushels	
Buckwheat .....	bushels	
Barley .....	bushels	
Other grain .....	bushels	
Fuel (specify kinds) .....		
Mill supplies .....		
Barrels .....	number	
Sacks .....	number	
All other materials .....		
Total cost of all materials .....		

## 8. Goods manufactured:

NOTE.—Great care should be exercised in answering question 8, especially in the case of small mills where no book accounts are kept. The value of the product means the price charged at the shop or factory, not including commissions or expenses of sales department.

Kinds.	Quantities.	Values.
Wheat flour .....	barrels	
Rye flour .....	barrels	
Buckwheat flour .....	pounds	
Barley meal .....	pounds	
Corn meal .....	barrels	
Hominy .....	pounds	
Offal .....	pounds	
Barrels made .....	number	
Sacks made .....	number	
All other products .....		
Total value of all products .....		

[Inquiries numbered 9 to 11, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 12. Pairs of rolls (number).

## 13. Runs of stone (number).

## 14. Estimated maximum capacity per day of 24 hours (bushels).

## 15. If any colored persons have capital invested in this establishment, state how many and the amount of capital: No.; amount.

# 384 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## SPECIAL SCHEDULE No. 8.—CHEESE, BUTTER, AND CONDENSED MILK FACTORIES.

(Not including farm products, which should be reported on agricultural schedule No. 2.)

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.  
Name of establishment; Street and No.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the establishment covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

(Read carefully the explanatory notes.)

[Inquiries numbered 1 and 2 in general schedule No. 3 are common to this special schedule and are not here reproduced.]

### 3. Kinds of goods manufactured.

**NOTE.**—The character of the principal product should be described here as specifically as possible. A statement of kinds and quantities of materials used and goods manufactured should be set forth in detail in answers to questions 7 and 8, respectively.

[Inquiries numbered 4 to 6, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

### 7. Materials used:

**NOTE.**—Great care should be exercised in answering question 7, especially in the case of small factories where no book accounts are kept. The cost of superintendence, rent, and the other general expenses of a manufacturing establishment are not to be included in materials. Amounts paid for furnishing should include boxes, salt, color, bandages, etc.

Kinds.	Quantities.	Cost at the factory using them, including freight charges.
<b>In making cheese:</b>		
Milk .....	pounds	
Average price.....	per 100 pounds	
Average amount used to make a pound of cheese.....	pounds	
Amount paid by factory patrons for furnishing.....		
Average price paid by factory patrons for making cheese.....	per 100 pounds	
All other materials (specify kinds): [3 blank lines.]		
Total.....		
<b>In making butter:</b>		
Gathered cream.....	pounds	
Average price.....	per inch	
Milk .....	pounds	
Average amount used to make a pound of butter.....	pounds	
Amount paid by factory patrons for furnishing.....		
Average price paid by factory patrons for making butter.....	per 100 pounds	
All other materials (specify kinds): [3 blank lines.]		
Total.....		
<b>In making condensed milk:</b> (Specify kinds):		
[2 blank lines.]		
Total.....		
Total cost of all materials.....		

### 8. Goods manufactured:

**NOTE.**—Great care should be exercised in answering question 8, especially in the case of small factories where no book accounts are kept. The value of the product means the price charged at the factory, not including commissions or expenses of sales department.

## 8. Goods manufactured—Continued.

Kinds.	Quantities.	Values.
Cheese made (specify kinds).....	pounds	
Average price at which sold.....	per 100 pounds	
All other products of cheese factory (specify kinds): [3 blank lines.]		
Total.....		
Butter made (specify kinds):.....	pounds	
[3 blank lines.]		
Average price at which sold.....	per pound	
Skimmed milk sold, fed, or returned to patrons.....		
All other products of butter factory (specify kinds): [3 blank lines.]		
Total.....		
Condensed milk made.....	pounds	
Total value of all products.....		

Average number of patrons supplying this factory.

Average number of cows supplying milk to this factory.

Value of cows supplying milk to this factory.

Cheese lost from defective make or other causes: No. of pounds; value.

[Inquiries numbered 9 to 12, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## SPECIAL SCHEDULE NO. 9.—SLAUGHTERING AND MEAT PACKING.

(Not to include retail butchering establishments.)

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.

Name of establishment; Street and No.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the establishment covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

(Read carefully the explanatory notes.)

[Inquiries numbered 1 and 2 in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 3. Kinds of products:

NOTE.—The character of the principal product should be described here as specifically as possible. A statement of kinds and quantities of materials used and of products should be set forth in detail in answers to questions 7 and 8, respectively.

[Inquiries numbered 4 to 6, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 7. Materials used:

NOTE.—Great care should be exercised in answering question 7, especially in the case of small establishments where no book accounts are kept. The cost of superintendence, rent, and other general expenses of a manufacturing establishment are not to be included in materials.

Kinds.	Quantities.	Cost at the factory using them, including freight charges.
Beeves slaughtered.....	number	
Average weight.....	gross; net	
Sheep slaughtered.....	number	
Average weight.....	gross; net	
Hogs slaughtered.....	number	
Average weight.....	gross; net	
All other animals slaughtered.....		
Fuel (specify kinds).....		
All other materials.....		
Total cost of all materials.....		

# 386 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## 8. Goods manufactured:

**NOTE.**—Great care should be exercised in answering question 8, especially in the case of small establishments where no book accounts are kept. The value of the product means the price charged at the shop or factory, not including commissions or expenses of sales department.

Kinds.	Quantities.	Values.
Beef sold fresh.....	pounds	
Beef canned.....	pounds	
Beef salted or cured.....	pounds	
Mutton sold fresh.....	pounds	
Pork sold fresh.....	pounds	
Pork salted.....	pounds	
Hams.....	pounds	
Smoked bacon, sides, and shoulders.....	pounds	
Sausage, fresh or cured.....	pounds	
Refined lard.....	pounds	
Neutral lard.....	pounds	
Oleomargarine oil.....	gallons	
Other oils.....	gallons	
Fertilizers.....	tons	
Hides.....	number; total weight	
Wool.....	pounds	
All other products.....		
Total value of all products.....		

[Inquiries numbered 9 to 12, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## SPECIAL SCHEDULE NO. 10.—CHEMICALS AND ALLIED PRODUCTS.

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.  
Name of establishment; Street and No.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the establishment covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

*(Read carefully the explanatory notes.)*

[Inquiries numbered 1 and 2 in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 3. Kinds of goods manufactured.

**NOTE.**—The character of the principal product should be described here as specifically as possible. A statement of kinds and quantities of materials used and goods manufactured should be set forth in detail in answers to questions 7 and 8, respectively.

[Inquiries numbered 4 to 6, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 7. Materials used:

**NOTE.**—Great care should be exercised in answering question 7, especially in the case of small establishments where no book accounts are kept. The cost of superintendence, rent, and other general expenses of a manufacturing establishment are not to be included in materials. When giving tons, in second column, state whether of 2,000 or of 2,240 pounds.

Kinds.	Quantities.	Cost at the factory using them, including freight charges.
(a)	(a)	(a)
Fuel (specify kinds).....		
Mill supplies.....		
All other materials.....		
Total cost of all materials.....		

a Several blank lines are printed in schedule.

## 8. Goods manufactured:

NOTE 1.—Great care should be exercised in answering question 8, especially in the case of small establishments where no book accounts are kept. The value of the product means the price charged at the factory, not including commissions or expenses of sales department.

NOTE 2.—Examine carefully the following list of groups, then enter quantity and value of your manufactured product under the proper heading or headings.

NOTE 3.—If any of the goods made by you do not properly come within this division ("Chemicals and Allied Products"), enter kind, quantity, and value of same under group 14.

NOTE 4.—When giving tons, state whether of 2,000 pounds or of 2,240 pounds.

Kinds.	Quantities.	Values.
Group 1.—Alum: (All kinds, including crystal, concentrated, and cake) .....		
Group 2.—Coal-tar products:		
(a) Coal-tar distillery products .....		
(b) Chemicals made from (a) .....		
Group 3.—Dye and tanning extracts:		
(a) Extracts .....		
(b) Chipped wood and other products in this group .....		
Group 4.—Explosives:		
(a) Gunpowder .....		
(b) High explosives .....		
(c) Fulminates .....		
Group 5.—Fertilizers:		
(a) From mineral phosphates .....		
(b) From raw bone .....		
(c) All others .....		
Group 6.—Paints, colors, and varnishes:		
A.—Pigments:		
(a) White lead .....		
(b) Oxides of lead .....		
(c) Barytes (ground or floated) .....		
(d) Oxide of zinc .....		
(e) Lampblack and hydro-carbon blacks .....		
(f) Fine colors .....		
(g) Iron oxide and other earth colors .....		
(h) Pulp colors (sold moist) .....		
B.—Paints:		
(a) Paints in oil, in paste .....	pounds	
(b) Paints already mixed for use .....	gallons	
C.—Varnishes and japans:		
All other products in this group .....		
Group 7.—Pharmaceutical preparations (Proprietary and patent medicines are not to be enumerated in this schedule.)		
Group 8.—Potash and pearl ash .....		
Group 9.—Sodas:		
(a) Soda ash .....		
(b) Sal soda .....		
(c) Bicarb. soda .....		
(d) Caustic soda .....		
Group 10.—Sulphuric acid:		
(a) 50° Beaumé .....		
(b) 60° Beaumé .....		
(c) 66° Beaumé (oil of vitriol) .....		
Group 11.—Wood alcohol and acetate of lime:		
(a) Wood alcohol, crude .....		
(b) Wood alcohol, refined .....		
(c) Acetate of lime .....		
(d) Average number of retorts in operation during the year ..		
Group 12.—Chemicals, including all acids, bases, and salts, or- ganic or inorganic, not enumerated above .....		
[18 blank lines.]		
Group 13.—All other goods made by you coming under the head of "Chemicals and Allied Products," but not enumerated above. Give items in detail .....		
[13 blank lines.]		
Group 14.—All goods made by you not coming under the head of "Chemicals and Allied Products." (See note 3.) Give items in detail .....		
[14 blank lines.]		
Total value of goods manufactured by your entire estab- lishment during the year .....		

[Inquiries numbered 9 to 11, inclusive, in general schedule No. 3 are common to this special sched-  
ule and are not here reproduced.]

## 388 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

12. Any remarks on the following points will prove of interest and of value in determining the condition of your industry and its advancement within the last decade:

New processes of manufacture.

New uses for which your products have been employed.

Analyses of materials used, or of your products.

Substitutions for your products that have lessened the consumption.

Substitutions of other materials in your manufacture for those formerly used.

13. If any colored persons have capital invested in this establishment, state how many and the amount of capital: No.; amount.

### SPECIAL SCHEDULE No. 11.—WHITE WARE AND POTTERY PRODUCTS.

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.  
Name of establishment; Street and No.

The period to be covered by this return is the census year beginning June 1, 1888 and ending May 31, 1890. If, however, the fiscal year of the establishment covers different period, the return may be for the fiscal year which most nearly conforms to the census year.

(Read carefully the explanatory notes.)

[Inquiries numbered 1 and 2 in general schedule No. 3 are common to this special schedule and are not here reproduced.]

3. Kinds of goods manufactured.

NOTE.—The character of the principal product should be described here as specifically as possible. A statement of kinds and quantities of materials used and goods manufactured should be set forth in detail in answers to questions 4 and 8, respectively.

[Inquiries numbered 4 to 6, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced; in "Miscellaneous Items" (inquiry 5), in this schedule, the following line is added, "Amount paid for claims and breakage."]

7. Materials used:

NOTE.—Great care should be exercised in answering question 7, especially in the case of small establishments where no book accounts are kept. The cost of superintendence, rent, and other general expenses of a manufacturing establishment are not to be included in materials.

Kinds.	Quantities.	Cost at the factory using them, including freight charges.
Oxide of zinc.....	pounds	
Oxide of lead.....	pounds	
Oxide of cobalt.....	pounds	
Barytes.....	tons	
Flint.....	tons	
Plaster.....	tons	
Feldspar.....	tons	
Borax.....	pounds	
Boracic acid.....	pounds	
Whiting (paris white).....	pounds	
China clay (domestic).....	tons	
China clay (foreign).....	tons	
Ball clay (domestic).....	tons	
Ball clay (foreign).....	tons	
Sagger clay.....	tons	
Straw.....	tons	
Crates and hogsheds.....	number	
Barrels and boxes.....	number	
Liquid and coin gold.....		
Color.....		
Copper and steel plates.....		
Mill supplies.....		
Fuel (specify kinds).....		
All other materials.....		
Total cost of all materials.....		

## 8. Goods manufactured:

NOTE.—Great care should be exercised in answering question 8, especially in the case of small establishments where no book accounts are kept. The value of the product means the price charged at the shop or factory, not including commissions or expenses of sales department.

Kinds.	Quantities.	Values.
Stone porcelain earthenware .....	dozens	
White granite earthenware .....	dozens	
C. C. or cream-colored earthenware .....	dozens	
China (hard biscuit) vitrified or vitreous .....	dozens	
China (soft biscuit) vitrified or vitreous .....	dozens	
Rockingham earthenware .....	dozens	
Yellow earthenware .....	dozens	
Decorated ware .....		
Other products (specify kinds):		
Porcelain doorknobs .....		
Porcelain insulator and electric trimmings .....		
Porcelain hardware trimmings .....		
Art pottery and porcelain .....		
All other products not above named:		
(7 blank lines.)		
Total value of all products .....		

[Inquiries numbered 9 to 11, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 12. Classes of employees and wages paid:

Class.	Number—				How paid: By the piece or by the day (a).	Daily wages.		Wages per dozen.		Average number of working hours per day.	Num-ber of days em- ployed during the year.
	Males.		Females.			Males.		Females.			
	Above 16 years.	Below 16 years.	Above 16 years.	Below 16 years.		Above 16 years.	Below 16 years.	Above 15 years.	Below 16 years.		
Manager.....											
Department foremen.....											
Pressers.....											
Casters.....											
Handlers.....											
Handlers' help.....											
Spongers.....											
Throwers.....											
Turners.....											
Jiggerers.....											
Dish makers.....											
Basin makers.....											
Metal die pressers.....											
Engravers.....											
Modelers.....											
Mold makers.....											
Machinists.....											
Mixers of clay.....											
Sagger makers.....											
Sagger makers' help.....											
Glostware dressers.....											
Biscuitware brushers.....											
Dippers.....											
Dippers' help.....											
Packers.....											
Warehousemen.....											
Selecters.....											
Selecters' help.....											
Decorators.....											
Printers.....											
Fillers-in.....											
Kilnmen.....											
Pin and stilt makers.....											
Firemen.....											
Drivers.....											
Laborers.....											
Engineers.....											
Watchmen.....											
Book keepers.....											
Clerks.....											
Salesmen.....											
Other employees.....											

a If rates are too complex to write here, please attach list to the schedule.

### 390 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

13. If any colored persons have capital invested in this establishment, state how many and the amount of capital: No.; amount.

**SPECIAL SCHEDULE No. 11a.—TERRA COTTA, SEWER PIPE, FIRE BRICK, AND STONE AND EARTHEN WARE.**

State; County; Post-office; S. D.; E. D. .... Special Agent or Enumerator.  
Name of establishment; Street and No.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the establishment covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

*(Read carefully the explanatory notes.)*

[Inquiries numbered 1 and 2 in general schedule No. 3 are common to this special schedule and are not here reproduced.]

**3. Kinds of goods manufactured.**

**NOTE.**—The character of the principal product should be described here as specifically as possible, as: Stoneware pottery, red earthenware, sewer pipe and terra cotta, fire brick, etc. A statement of kinds and quantities of materials used and goods manufactured should be set forth in detail in answers to questions 7 and 8, respectively.

[Inquiries numbered 4 to 6, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced; in "Miscellaneous Items," (inquiry 5) in this schedule the following line is added, "Amount paid for claims and breakage."]

**7. Materials used:**

**NOTE.**—Great care should be exercised in answering question 7, especially in the case of small factories where no book accounts are kept. The cost of superintendence, rent, and other general expenses of a manufacturing establishment are not to be included in materials.

Kinds.	Quantities.	Cost at the factory using them, including freight charges.
Clay (specify kinds) .....	tons	
[4 blank lines.]		
Sand .....	tons	
Flint .....	tons	
Salt .....	tons	
Albany dip .....	tons	
Fuel (specify kinds) .....		
Mill supplies .....		
All other materials .....		
Total cost of all materials .....		

**8. Goods manufactured:**

**NOTE.**—Great care should be exercised in answering question 8, especially in the case of small factories where no book accounts are kept. The value of the product means the price charged at the shop or factory, not including commissions or expenses of sales department.

Kinds.	Quantities.	Values.
Sewer pipe. ....		
Terra cotta:		
Chimney tops .....	number	
Lumber .....	feet	
Brick .....	number	
Architectural and ornamental work .....		
Fire brick .....	No. of 1,000	
Saggers .....	number	
Gas retorts .....	number	
Glass retorts .....	number	
Stoneware .....	dozens	
Tile .....		
Stone fancy goods .....		
Earthenware .....		
All other products .....		
Total value of all products .....		

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 391

[Inquiries numbered 9 to 11, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 12. Classes of employees and wages paid:•

Class.	Number—				How paid: By the piece, or by the day. (a)	Daily wages.		Wages per dozen.		Average num- ber of work- ing hours per day.	Num- ber of days em- ployed during the year.
	Males.		Females.			Males.		Females.			
	Above 16 years.	Below 16 years.	Above 15 years.	Below 15 years.		Above 16 years.	Below 16 years.	Above 15 years.	Below 15 years.		
Managers.....											
Modelers.....											
Mold makers.....											
Mixers of clay.....											
Sagger makers.....											
Sewer-pipe makers..											
Fire-brick makers.....											
Packers.....											
Kilnmen.....											
Firemen.....											
Drivers.....											
Laborers.....											
Engineers.....											
Pressers.....											
Jiggermen.....											
Throwers.....											
Turners.....											
Other employees.....											

a If rates are too complex to write here, please attach list to this schedule.

## 13. If any colored persons have capital invested in this establishment, state how many and the amount of capital: No.; amount.

### SPECIAL SCHEDULE No. 12.—COKE.

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.  
Name of establishment; Street and No.

The period to be covered by this return is the year ending December 31, 1899.

In filling out this schedule it should be borne in mind that coke is regarded as a manufacture of coal, and it is therefore particularly requested that the statistics of coke works and of the coal mines supplying coal to the same be kept separate and distinct. This is especially necessary in view of the fact that, while many coal mines are operated solely to supply coke works, a considerable percentage of the coke produced in the United States is made from the slack coal produced at mines that are operated to furnish coal to the general market and not to make coke.

The first part of this schedule is prepared especially for those coal mines of which nearly or quite the entire production is used in the manufacture of coke; that is, those mines which are operated chiefly for the production of coke, and not for the sale of coal as coal in the general market. The questions asked are the same as those asked in the schedule for coal mining.

When coke ovens are operated only to use slack or refuse coal, answers to the questions in Part 1 are not needed.

(Read carefully the explanatory notes.)

### PART 1.—COAL MINES AT COKE WORKS.

#### 1. Name of corporation, firm, or individual.

NOTE.—In the case of an operator working mines located in different places a separate return should be made for each establishment.

#### 2. Date when this mine commenced operations:

If not now operated by original founders, give (a) name of immediate predecessor of present operators, and (b) date when present operators commenced operations, if since June 1, 1880.

(a) Name.

(b) Date.

# 392 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

3. Name and location of mine:
  - Name of mine.
  - Location (city, town, or township); state.
  - Name, and distance from mine, of nearest railway station or river tripple:
    - Name; distance.
  - Name and post-office address of resident superintendent or agent:
    - Name; post-office.
4. Capital invested (both owned and borrowed):
  - Value of coal plant (the value should be estimated at what the works would cost in 1890, if then to be erected, with such allowance for depreciation as may be suitable in the individual case):
    - Land—area in acres; value.
    - Buildings and fixtures.
    - Machinery, tools, and implements.
    - Railway plant.
    - Total.
  - Live capital:
    - Product on hand—tons; value.
    - Live stock and general supplies (not including investment in general stores or mercantile business).
    - Cash on hand, bills receivable, unsettled ledger accounts, and sundries not included in any of the foregoing items (not including investment in general stores or mercantile business).
    - Total capital invested in coal mines and employed in producing coal.
    - Average annual allowance since June 1, 1880, for depreciation of buildings and machinery.
5. Miscellaneous items:
  - Amount paid for rent.
  - Amount paid for taxes.
  - Amount paid for insurance.
  - Amount paid for repairs, ordinary, of buildings and machinery.
  - Amount paid for commissions and expenses of sales department.
  - Amount paid for interest on cash used in the business.
  - Amount paid for all sundries (not reported in any of the foregoing items).
  - Total.
6. Labor and wages (including those employed by contractors and subcontractors):
  - NOTE.—Hands employed on contract work and their earnings should be separately reported below. Wages paid should include board or rent furnished as part compensation.

Classes.	Above ground.			Below ground.		
	Average number employed.	Average wages per day.	Average number of days worked.	Average number employed.	Average wages per day.	Average number of days worked.
Mechanics, engineers, and other skilled workmen, overseers, and foremen or superintendents (not general superintendents or managers) .....						
Miners:						
Males above 16 years .....						
Boys under 16 years .....						
Clerks or salesmen:						
Males above 16 years .....						
Females above 16 years .....						
Watchmen, laborers, teamsters, and other unskilled workmen:						
Males above 16 years .....						
Females above 16 years .....						
Children .....						
Contract work (not included in the foregoing statement):						
Males above 16 years .....						
Females above 16 years .....						
Children .....						

Total amount of wages paid as above in producing coal.  
 Total amount paid to contractors for contract work, not included above.  
 Total of wages.

## 6. Labor and wages, etc.—Continued.

Weekly rates of wages paid and average number of hands employed at each rate (not including those employed on contract work).

NOTE.—The following table should embrace the number of employees reported above, reckoned, respectively, at the several rates of pay.

[The table of weekly rates in general schedule No. 3 (inquiry 6) is common to the table in this special schedule and is not here reproduced.]

## 7. Materials used:

Coal consumed—tons; value.

Subsistence of animals; value.

Value of all other supplies and materials of all kinds consumed in coal mining.

Total.

## 8. Product:

NOTE.—Use the long or short ton or other unit, according to your usual custom, but state definitely the number of pounds in the unit used.

Character of coal produced (whether bituminous or semi-bituminous).

Total product of coal at ..... pounds per ..... ; quantity.

Value at mine.

## 9. Disposition of total coal product:

(a) Loaded at mines for shipment on railroad cars and boats.

(b) Sold to local trade at mines.

(c) Used by employees.

(d) Used at mines.

(e) Manufactured into coke.

Total quantity as above.

## 10. Maximum production of coal for any month during year, with name of month: Quantity; month.

## 11. Total amount received for coal sold during year.

NOTE.—Reply to this question should only embrace that portion of the product sold as *coal*. Do not include that used at coke works.

## 12. Average price of coal on cars at the mine (specifying unit of measurement or weight), \$..... per ..... of ..... pounds.

NOTE.—Reply to this question should only embrace that portion of the product sold as *coal*. Do not include that used at coke works.

## 13. Number of days during the year when the mines were idle, and the cause: Days; cause.

## 14. Number of hours in the ordinary day of labor:

May to November.

November to May.

## 15. Power used in mining:

Number and total horsepower of steam boilers: Number; horsepower.

Number and size of cylinders of steam engines.

If other power, state kind.

Number of motors; horsepower.

Number and kind of mining machines.

## 16. Number of animals employed in mining.

## PART 2.—THE MANUFACTURE OF COKE.

The period to be covered by this return is the year ending December 31, 1889.

(Read carefully the explanatory notes.)

[Inquiries numbered 1 and 2 in general schedule No. 3 are common to this special schedule and are not here reproduced.]

NOTE.—The following questions relate only to coke works, and not to coal works connected with ovens.

## 3. Name of coke works:

Location of ovens or pits: city, town, or township; county; state.

Location of coal mines used to supply coke works: city, town, or township; county; state.

Name and post-office address of resident superintendent or agent:

(a) Name.

(b) Post-office address.

# 394 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## 4. Capital invested in coke works (both owned and borrowed):

Value of plant (the value should be estimated at what the works would cost in 1890, if then to be erected, with such allowance for depreciation as may be suitable in the individual case):

Land  
Buildings.  
Ovens.  
Machinery, tools, and implements.  
Railway plant and water supply.  
Total.

### Live capital:

Raw materials and supplies on hand.  
Stock in process and finished products on hand.  
Cash on hand, bills receivable, unsettled ledger accounts, and sundries not included in any of the foregoing items.  
Total.

Average annual allowance since June 1, 1880, for depreciation of buildings, ovens, and machinery.

[Inquiries numbered 5 and 6 in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 7. Materials and supplies used:

NOTE.—Great care should be exercised in answering question 7, especially in the case of small works where no book accounts are kept. The cost of superintendence, rent, and other general expenses of coke works are not to be included in materials. When giving tons, in second column, state whether of 2,000 or of 2,240 pounds.

Kinds.	Quantities.	Cost at the works using them, including freight charges.
Coal.....	tons	
Fire brick.....	thousands	
Red brick.....	thousands	
Castings.....	tons	
Wood.....	cords	
All other materials and supplies.....		
Total cost of all materials.....		

### Coal used:

NOTE.—It is especially desired to ascertain how much of the coal coked is "run of mine" or lump and how much is slack or waste. The total quantity of coal charged into ovens during year, as specified above, should be accounted for here.

Kinds.	Quantities.	Values.
Run of mine or lump (unwashed).....	tons	
Run of mine or lump (washed).....	tons	
Unwashed slack.....	tons	
Washed slack.....	tons	

## 8. Coke produced:

NOTE 1.—Great care should be exercised in answering question 8, especially in the case of small works where no book accounts are kept. The value of the product means the price charged at the works, not including commissions or expenses of sales department.

NOTE 2.—When giving tons, in second column, state whether of 2,000 or of 2,240 pounds.

## 8. Coke produced—Continued.

Kinds.	Quantities.	Values.
Coke produced.....	tons	
All other products.....		
Total value of all products.....		

## Yield of coal, in coke:

Product of coke, in pounds, from 100 bushels of coal.

Product of coke, in bushels, from 100 bushels of coal.

Weight of coal per bushel (pounds).

Weight of coke per bushel (pounds).

[Inquiries numbered 9 and 10 in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 11. Power used in manufacture:

If steam power is used, state—

Number of boilers.

Number of engines.

Horsepower.

## 12. Washing and crushing:

Name of crusher used for coal.

Number of crushers used; total capacity per day (tons).

Cost of crushing coal per ton of coke produced.

Name of washer used.

Number of washers used; total capacity per day (tons).

Average waste of coal, per ton, in washing (pounds).

Cost of washing per ton of coke produced.

## 13. Ovens, pits, or mounds:

Total number of finished ovens at works.

Number of beehive ovens.

Number of Belgian or flue ovens.

Other styles of ovens (name and number of each style): Name; number.

Number of pits or mounds.

Sizes of pits or mounds.

Number of ovens in process of construction:

Beehive.

Belgian or flue.

Other styles (name of style).

Sizes of ovens.

Time of burning.

## 14. Daily rates of wages:

NOTE.—Labor not embraced by classes in following table should be added in proper classification.

Class.	Number of men.	Number of boys.	Daily wages paid men.	Daily wages paid boys.	Number of days in operation.	Average number hours per day.	If men or boys of any class are paid per ton, bushel, car, oven, etc., state price and unit of payment.	
							Men.	Boys.
Superintendent.....							\$ per	\$ per
Clerks.....								
Haulers.....								
Coke chargers.....								
Coke drawers.....								
Coke laborers.....								
Forkers.....								
Men at washer.....								

Periods of payment (weekly, fortnightly, monthly, etc.).

Have you a store connected with works?

## 15. If any colored persons have capital invested in this establishment, state how many and the amount of capital: No.; amount.

## SPECIAL SCHEDULE No. 13.—COTTON MANUFACTURES.

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.  
Name of establishment; Street and No.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the establishment covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

(Read carefully the explanatory notes.)

## 1. Name of corporation, firm, or individual.

NOTE.—In the case of a manufacturer operating establishments located in different cities or towns a separate return should be made for each establishment.

## 2. Year in which this establishment commenced operations.

(a) By whom was this mill operated in 1880? (b) State the increased productive capacity of this mill, if any, since 1880.

## 3. Kinds of goods manufactured.

[Inquiries numbered 4 and 5 in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 6. Labor and wages:

NOTE.—Mill operatives employed in spinning or weaving are to be returned in this table at (a), as though employed by the day. Other hands, if any, employed on piecework should be separately reported at (e). Wages paid should include board or rent furnished as part compensation.

Classes.	Average number employed during the year.	Total amount paid in wages during the year.
(a) Operatives, designers, engineers, and other skilled workmen, overseers, and foremen or superintendents (not general superintendents or managers):		
Males above 16 years .....		
Females above 15 years .....		
Children .....		
(b) Officers or firm members:		
Males .....		
Females .....		
(c) Clerks or salesmen:		
Males above 16 years .....		
Females above 15 years .....		
Children .....		
(d) Watchmen, laborers, teamsters, and other unskilled workmen:		
Males above 16 years .....		
Females above 15 years .....		
Children .....		
(e) Piecework (not included in the foregoing statement; see note above):		
Males above 16 years .....		
Females above 15 years .....		
Children .....		
Total .....		

Weekly rates of wages paid and average number of hands employed at each rate (not including those employed on piecework, other than spinning and weaving).

[The table of weekly rates in general schedule No. 3 (inquiry 6) is common to the table in this special schedule and is not here reproduced.]

## 7. Materials used:

NOTE.—The cost of superintendence, rent, and other general expenses of a manufacturing establishment are not to be included in materials.

## 7. Material used—Continued.

Kinds.	Quantities.	Cost at the factory using them, including freight charges.
Cotton consumed:		
Sea island.....	bales; pounds	
Other domestic.....	bales; pounds	
Egyptian or other foreign.....	bales; pounds	
Flax, hemp, jute, or ramie products (specify which): [3 blank lines.]		
Cotton yarn, <i>not made in mill</i> .....	pounds	
Woolen yarn, <i>not made in mill</i> .....	pounds	
Worsted yarn, <i>not made in mill</i> .....	pounds	
Silk yarn.....	pounds	
Spun-silk yarn.....	pounds	
Other yarns, <i>not made in mill</i> (specify fiber): [2 blank lines.]		
Other materials (specify fiber): [5 blank lines.]		
Waste of other mills.....	pounds	
Oil.....	gallons	
Starch.....	pounds	
Chemicals and dyestuffs.....		
Fuel (specify kinds).....		
Mill supplies.....		
All other materials.....		
Total cost of all materials.....		

## 8. Goods manufactured:

NOTE.—The value of the products means the price charged at the factory, not including commissions or expenses of sales department. Estimate value of products unsold at their present selling value.

Kinds.	Quantities.	Values.
Plain cloths for printing or converting.....	square yards	
Brown or bleached sheetings or shirtings.....	square yards	
Drills, twills, and sateens.....	square yards	
Ginghams.....	square yards	
Cotton flannels.....	square yards	
Upholstery goods:		
Tapestries.....	square yards	
Curtains.....	pairs	
Chenille.....	square yards	
Other upholstery goods.....	square yards	
Fine or fancy woven fabrics.....	square yards	
Duck.....	square yards	
Ticks, denims, and stripes.....	square yards	
Bags or bagging (specify fiber of which composed).....	square yards	
Tape and webbings.....	pieces	
Yarns for sale.....	pounds	
Sewing cotton.....	pounds	
Linen thread.....	pounds	
Twine.....	pounds	
Batting or wadding.....	pounds	
Other articles of cotton, hemp, jute, ramie, or flax (name them): [7 blank lines.]		
All other products.....		
Total value of all products.....		

[Inquiries numbered 9 to 11, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 12. Machinery:

Number of producing spindles (omitting twisting and doubling spindles):

Mule.

Frame.

Number of looms—

On plain cloths, less than 28 inches wide.

On plain cloths, from 28 to 32 inches wide.

On plain cloths, from 32 to 36 inches wide.

On plain cloths, more than 36 inches wide.

On twills, including sateens.

On fancy weaves.

On bags and other spec

## 398 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

13. Average number of yarn produced.
14. Actual numbers of yarn spun—coarsest, No.; finest, No.
15. Weight of piece goods produced (pounds).
16. Weight of yarn spun and not woven in the mill (pounds).
17. Weight of products other than piece goods and yarn (pounds).  
Additional questions for manufacturers who bleach, dye, or print goods of their own manufacture:
18. Number of printing machines (square yards).  
Cloth printed (square yards).  
Additional gross value given to the product of your mill by printing.
19. Cloth dyed (square yards).  
Yarn dyed (pounds).  
Additional gross value given to the product of your mill by dyeing.
20. Cloth bleached (square yards).  
Additional gross value given to the product of your mill by bleaching.

### SPECIAL SCHEDULE No. 14.—DYEING AND FINISHING OF TEXTILES.

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.  
Name of establishment; Street and No.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the establishment covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

*(Read carefully the explanatory notes.)*

1. Name of corporation, firm, or individual.  
NOTE.—In the case of a manufacturer operating establishments located in different cities or towns a separate return should be made for each establishment.
2. Year in which this establishment commenced operations.  
(a) By whom were these works operated in 1880? (b) State the increased productive capacity of these works, if any, since 1880.
3. Kind of work done.  
NOTE.—The character of the work done should be described here as specifically as possible. A statement of kinds and quantities of materials used and work done should be set forth in detail in answers to questions 7 and 8, respectively.

[Inquiries numbered 4 to 6, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

#### 7. Materials used:

NOTE.—Great care should be exercised in answering question 7, especially in the case of small works where no book accounts are kept. The cost of superintendence, rent, and other general expenses of the establishment are not to be included in materials.

Kinds.	Quantities.	Cost at the works using them, including freight charges.
Chemicals and dyestuffs .....	pounds	
Starch .....	pounds	
Soap .....	pounds	
Fuel (specify kinds) .....		
All other materials .....		
Total cost of all materials .....		

#### 8. Work done:

NOTE.—Great care should be exercised in answering question 8, especially in the case of small works where no book accounts are kept. The value of the work done means the value added by the process of dyeing and finishing.

## 8. Work done—Continued.

Kinds.	Quantities.	Values.
Woolen yarn.....	pounds	
Worsted yarn.....	pounds	
Cotton yarn.....	pounds	
Spun-silk yarn.....	pounds	
Thrown silk.....	pounds	
Wool stock.....	pounds	
Cotton stock.....	pounds	
Wool and worsted piece goods.....	sq. yards	
Cotton piece goods dyed.....	sq. yards	
Cotton piece goods bleached.....	sq. yards	
Cotton piece goods printed.....	sq. yards	
Silk piece goods.....	sq. yards	
Mixed textile piece goods.....	sq. yards	
All other work done.....		
Total value of all work done.....		

[Inquiries numbered 9 to 11, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 12. Number of printing machines.

[Special schedules No. 15 to No. 150, inclusive, relating to the electrical industry, are inserted at the end of Manufactures for 1890.]

## SPECIAL SCHEDULE No. 16.—GLASS: PLATE GLASS.

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.  
Name of establishment; Street and No.

## CLASSIFICATION OF GLASS PRODUCTS.

The following classification of glass products has been adopted, and will be followed in compiling statistics of the Eleventh Census:

*Class 1.*—Plate glass (including rough and polished plate for window glass and mirrors) and cathedral glass. *Returns to be made on special schedule No. 16.*

*Class 2.*—Window glass (including cylinder or sheet window glass). *Returns to be made on special schedule No. 16a.*

*Class 3.*—Glassware (including flint or lead glass, and lime glass, both blown and pressed, lamp chimneys, and flint druggists' ware). *Returns to be made on special schedule No. 16b.*

*Class 4.*—Green and black bottle and green druggists' ware. *Returns to be made on special schedule No. 16c.*

**NOTE.**—If more than one of the above classes of glass are produced at the same establishment a separate return upon the proper schedule must be made for each, and great care should be exercised in the proper division of capital, labor, and wages, materials used, and glass produced under each class. In cases where the entire plant is so blended as to make this separation difficult, manufacturers may estimate the part belonging to each class and divide it properly under the respective heads.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the works are not operated during the summer, the year may be regarded as covering what is known as the "fire of '89 and '90," which closed June 30, 1890. In case the period of firing is taken as the year, all statements should cover twelve months, beginning July 1, 1889, and ending June 30, 1890.

(Read carefully the explanatory notes.)

[Inquiries numbered 1 and 2 in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 3. Name of works and classes of glass manufactured:

- (a) Name of works.
- (b) Classes of glass.

[Inquiries numbered 4 to 6, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced; under "Miscellaneous items" (inquiry 5) in this schedule the following note is appended: Cost of ordinary repairs to furnace will be reported under the head of "Materials used," and must not be included here.]

# 400 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## 7. Materials used:

NOTE.—The cost of superintendence, rent, and other general expenses of a manufacturing establishment are not to be included in materials. The ton of 2,000 pounds should always be used.

Kinds.	Quantities.	Cost at the factory using them, including freight charges.
Mixing sand .....	tons	
Grinding sand .....	tons	
Soda ash (carbonate of soda) .....	tons	
Salt cake (sulphate of soda) .....	tons	
Quicklime .....	bushels	
Limestone .....	tons	
Arsenic .....	pounds	
Manganese .....	pounds	
Charcoal .....	bushels	
Rouge .....		
Emery .....		
Cotton cloth .....	yards	
Felt .....	yards	
Plaster of paris .....	tons	
Fire clay or pot clay (American) .....	pounds	
Fire clay or pot clay (English) .....	pounds	
Fire clay or pot clay (German) .....	pounds	
Pots (not including those made at works) .....	number	
Coal .....	tons	
Coke .....	tons	
Wood .....	cords	
Fire brick .....	thousands	
Red brick .....	thousands	
Furnace stone .....	perches	
Iron castings .....	tons	
Iron, wrought .....	tons	
Lumber (including that in boxes purchased) .....	thousand feet	
Nails .....	kegs	
Straw and hay .....	tons	
All other materials .....		
Total cost of all materials .....		

## 8. Glass manufactured:

NOTE.—The value of the product means the price charged at the factory, not including commissions and expenses of sales department. Estimate value of finished products unsold at their present selling value.

Kinds.	Quantities.	Values.
Total plate glass cast .....	square feet	
Rough plate glass sold .....	square feet	
Smooth plate glass made .....	square feet	
Polished plate glass made .....	square feet	
Cathedral glass made .....	square feet	
All other products, naming them, with quantities and values in each case:		
[5 blank lines.]		
Total value of all products .....		

[Inquiries numbered 9 to 12, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 13. Characteristics of factory plant:

Number of furnaces owned or operated.	Kind of furnace.	Kind of fuel used in each furnace.	Number of pots in each furnace.
(a)	(a)	(a)	(a)
Total:			Total:

a Several blank lines are printed in schedule.

## 13. Characteristics of factory plant—Continued.

Casting tables—Number; sizes.

Annealing ovens—Number; total capacity (square feet).

Grinding machines—Number; sizes.

Smoothing machines—Number; sizes.

Polishing machines—Number; sizes.

Grinding mills—Number; sizes.

Horses (number); mules (number).

Wagons (number); carts (number); drays (number).

What new constructions, in addition to old works (not including ordinary repairs), have you made during year?

General description.	Cost.
(a)	(a)
Total cost of new constructions .....	

a Several blank lines are printed in schedule.

Have you a store for supplying operatives with necessities of life in connection with works?

## 14. Periods of payments (weekly, fortnightly, monthly, etc.).

## 15. Causes for idleness.

NOTE.—If idle during the year, state the cause, and if for several causes, as strikes, no demand, etc., give number of working days idle from each cause.

[3 blank lines.]

## 16. Distinctive classes of employees and wages paid:

Class.	Number of males 16 years old and upward.	Number of males under 16 years.	Number of females 15 years old and upward.	Number of females under 15 years.	How is each class paid—per day, week, foot, etc. (If rates are too complex to write here, attach list to schedule.)	Daily wages or daily earnings paid males 16 years old and upward.
Founders .....						
Gas makers .....						
Teemers or pourers .....						
Roller men .....						
Kiln firemen .....						
Furnace men .....						
Grinders .....						
Smoothers .....						
Polishers .....						
Mixers .....						
Pot makers .....						
Crocus men .....						
Cutters .....						
Glass packers .....						
Machinists .....						
Blacksmiths .....						
Firemen .....						
Engineers .....						
Carpenters .....						
Bricklayers .....						
Furnace builders .....						
Teamsters .....						
Sand quarrymen .....						
Limestone quarrymen .....						
Mill men .....						
Plaster burners .....						

## 402 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## 16. Distinctive classes of employees and wages paid—Continued.

Class.	Daily wages or daily earnings paid males under 16 years.	Daily wages or daily earnings paid females 15 years old and upward.	Daily wages or daily earnings paid females under 15 years.	Wages per foot paid males 16 years old and upward.	Wages per foot paid males under 16 years.	Wages per foot paid females 15 years old and upward.	Wages per foot paid children.
Founders.....							
Gas makers.....							
Teemers or pourers.....							
Roller men.....							
Kiln firemen.....							
Furnace men.....							
Grinders.....							
Smoothers.....							
Polishers.....							
Mixers.....							
Pot makers.....							
Crocus men.....							
Cutters.....							
Glass packers.....							
Machinists.....							
Blacksmiths.....							
Firemen.....							
Engineers.....							
Carpenters.....							
Bricklayers.....							
Furnace builders.....							
Teamsters.....							
Sand quarrymen.....							
Limestone quarrymen.....							
Mill men.....							
Plaster burners.....							

## SPECIAL SCHEDULE No. 16a.—GLASS: WINDOW GLASS.

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.  
Name of establishment; Street and No.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the works are not operated during the summer, the year may be regarded as covering what is known as the "fire of '89 and '90," which closed June 30, 1890. In case the period of firing is taken as the year, all statements should cover twelve months beginning July 1, 1889, and ending June 30, 1890.

(Read carefully the explanatory notes.)

[Inquiries numbered 1 and 2 in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 3. Name of works and classes of glass manufactured:

- (a) Name of works.  
(b) Classes of glass (as classified).

[Inquiries numbered 4 to 6, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced: under "Miscellaneous items" (inquiry 5) in this schedule the following note is appended: Cost of ordinary repairs to furnaces will be reported under the head of "Materials used," and must not be included here.]

## 7. Materials used:

NOTE.—The cost of superintendence, rent, and other general expenses of a manufacturing establishment are not to be included in materials. The ton of 2,000 pounds should always be used.

## 7. Materials used—Continued.

Kinds.	Quantities.	Cost at the factory using them, including freight charges.
Mixing sand .....	tons	
Soda ash (carbonate of soda) .....	tons	
Salt cake (sulphate of soda) .....	tons	
Salt (chloride of sodium) .....	tons	
Quicklime .....	bushels	
Limestone .....	tons	
Arsenic .....	pounds	
Manganese .....	tons	
Fire clay or pot clay (American) .....	pounds	
Fire clay or pot clay (English) .....	pounds	
Fire clay or pot clay (German) .....	pounds	
Pots (not including those made at works) .....	number	
Charcoal .....	bushels	
Coal .....	tons	
Coke .....	tons	
Wood .....	cords	
Lumber (including that in boxes purchased) .....	thousand feet	
Nails .....	kegs	
Straw and hay .....	tons	
Supplies used for ordinary repairs of furnaces .....		
All other materials .....		
Total cost of all materials .....		

## 8. Goods manufactured:

NOTE.—The value of the products means the price charged at the factory, not including commissions or expenses of sales department. Estimate value of finished products unsold at their present selling value.

Kinds.	Quantities.	Values.
Window glass .....	No. of boxes of 50 ft. each	
(a)	(a)	(a)
Total value of window glass .....		

a Several blank lines are printed in schedule.

[Inquiries numbered 9 to 12, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 13. Characteristics of factory plant:

Number of furnaces owned or operated.	Kind of furnace.	Kind of fuel used in each furnace.	Number of pots in each furnace.
(a)	(a)	(a)	(a)
Total:			Total:

a Several blank lines are printed in schedule.

Flattening ovens—Kind; sizes; number.

Monkey ovens (number).

Clay-grinding mills (number).

Horses (number); carts (number); drays (number).

What new constructions, in addition to old works (not including ordinary repairs), have you made during year?

General description.	Cost.
(a)	(a)
Total cost of new constructions .....	

a Several blank lines are printed in schedule.

Have you a store for supplying operatives with necessities of life in connection with works?

# 404 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

14. Periods of payments (weekly, fortnightly, monthly, etc.)

15. Causes for idleness.

NOTE.—If idle during the year, state the cause, and if for several causes, as strikes, no demand, etc., give number of working days idle from each cause.  
[7 blank lines.]

16. Distinctive classes of employees and wages paid:

Class.	Number of males 16 years old and upward.	Number of males under 16 years.	Number of females 15 years old and upward.	Number of females under 15 years.	How is each class paid—per day, week, foot, box, etc. (If rates too complex to write here, attach list to schedule.)	Daily wages or daily earnings of males 16 years old and upward.
Managers.....						
Boss blowers.....						
Blowers.....						
Gatherers or tending boys.....						
Master teasers.....						
Master teasers' helpers.....						
Teasers.....						
Lime sifters.....						
Mixers.....						
Batch wheelers or fillers-in.....						
Coal wheelers.....						
Flatteners.....						
Layers-out.....						
Layers-in.....						
Leer tenders.....						
Roller boys.....						
Pot makers.....						
Clay trampers.....						
Boss cutters.....						
Cutters.....						
Packers.....						
Drivers.....						
Laborers.....						

Class.	Daily wages or daily earnings of males under 16 years.	Daily wages or daily earnings of females 15 years old and upward.	Daily wages or daily earnings of females under 15 years.	Wages per dozen, foot, box, etc., paid males 16 years old and upward.	Wages per dozen, foot, box, etc., paid males under 16 years.	Wages per dozen, foot, box, etc., paid females 15 years old and upward.	Wages per dozen, foot, box, etc., paid females under 15 years.
Managers.....							
Boss blowers.....							
Blowers.....							
Gatherers or tending boys.....							
Master teasers.....							
Master teasers' helpers.....							
Teasers.....							
Lime sifters.....							
Mixers.....							
Batch wheelers or fillers-in.....							
Coal wheelers.....							
Flatteners.....							
Layers-out.....							
Layers-in.....							
Leer tenders.....							
Roller boys.....							
Pot makers.....							
Clay trampers.....							
Boss cutters.....							
Cutters.....							
Packers.....							
Drivers.....							
Laborers.....							

## SPECIAL SCHEDULE No. 16b.—GLASS: GLASSWARE.

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.  
Name of establishment; Street and No.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the works are not operated during the summer, the year may be regarded as covering what is known as the "fire of '89 and '90," which closed June 30, 1890. In case the period of firing is taken as the year, all statements should cover twelve months beginning July 1, 1889, and ending June 30, 1890.

(Read carefully the explanatory notes.)

[Inquiries numbered 1 and 2 in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 3. Name of works and classes of glass manufactured:

(a) Name of works.

(b) Classes of glass.

[Inquiries numbered 4 to 6, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced; under "Miscellaneous items" (inquiry 5) in this schedule the following note is appended: Cost of ordinary repairs to furnaces will be reported under the head of "Materials used," and must not be included here.]

## 7. Materials used:

NOTE.—The cost of superintendence, rent, and other general expenses of a manufacturing establishment are not to be included in materials. The ton of 2,000 pounds should always be used.

Kinds.	Quantities.	Cost at the factory using them, including freight charges.
Mixing sand .....	tons	
Soda ash (carbonate of soda) .....	tons	
Nitrate of soda .....	tons	
Salt cake (sulphate of soda) .....	tons	
Lime .....	busbels	
Litharge (or red lead) .....	pounds	
Pearl ash .....	pounds	
Arsenic .....	pounds	
Manganese .....	pounds	
Oxide of cobalt .....	pounds	
Zaffer .....	pounds	
Beeswax .....	pounds	
Fire clay or pot clay (American) .....	pounds	
Fire clay or pot clay (English) .....	pounds	
Fire clay or pot clay (German) .....	pounds	
Pots (not including those made at works) .....	number	
Charcoal .....	busbels	
Coal .....	tons	
Coke .....	tons	
Wood .....	cords	
Lumber (including that in boxes purchased) .....	thousand feet	
Casks and barrels .....	number	
Nails .....	kegs	
Straw and hay .....	tons	
Supplies used for ordinary repairs of furnaces .....		
All other materials .....		
Total cost of all materials .....		

## 8. Goods manufactured:

NOTE.—The value of the products means the price charged at the factory, not including commissions or expenses of sales department. Estimate value of products unsold at their present selling value.

Kinds.	Quantities.	Values.
Tumblers and goblets .....	gross	
Lamps .....	dozens	
Lamp chimneys .....	dozens	
Flint bottles, prescriptions and flasks .....	gross	
Miscellaneous glassware .....	{ (a) number of dozen pieces } { (b) number of tons weight }	
Total value of all products .....		

# 406 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

[Inquiries numbered 9 to 12, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 13. Characteristics of factory plant:

Number of furnaces owned or operated.	Kind of furnace.	Kind of fuel used in each furnace.	Number of pots in each furnace.
(a)	(a)	(a)	(a)
Total:			Total:

a Several blank lines are printed in schedule.

Glory-holes (number).  
 Presses or pressing machines (number).  
 Annealing ovens (number).  
 Leers (number).  
 Shops (number).  
 Grinding and engraving machines (number).  
 Clay-grinding mills (number).  
 Crimping machines (number).  
 Finishing machines (number).  
 Horses (number); carts (number); drays (number).  
 What new constructions, in addition to old works (not including ordinary repairs), have you made during year?

General description.	Cost.
(a)	(a)
Total cost of new constructions.....	

a Several blank lines are printed in schedule.

Have you a store for supplying operatives with necessities of life in connection with works?

## 14. Periods of payments (weekly, fortnightly, monthly, etc.).

## 15. Causes for idleness.

NOTE.—If idle during the year, state the cause, and if for several causes, as strikes, no demand, etc., give the number of working days idle from each cause.  
 [3 blank lines.]

## 16. Distinctive classes of employees and wages paid:

Class.	Number of males 16 years old and upward.	Number of males under 16 years.	Number of females 15 years old and upward.	Number of females under 15 years.	How is each class paid—per day, week, etc.? (If rates too complex to write here, attach list to schedule.)	Daily wages or daily earnings of males 16 years old and upward.
Manager .....						
Pressers .....						
Finishers .....						
Gatherers .....						
Stickers-up .....						
Cleaning-off boys .....						
Carrying-in boys .....						
Mold holders .....						
Blowers .....						
Cutters .....						
Engravers .....						
Mold makers .....						
Machinists .....						
Mixers .....						
Teasers .....						
Pot fillers .....						
Pot makers .....						
Clay trappers .....						
Packers .....						
Drivers .....						
Laborers .....						
Engineers .....						

## 16. Distinctive classes of employees and wages paid—Continued.

Class.	Daily wages or daily earnings of males under 16 years.	Daily wages or daily earnings of females 15 years old and upward.	Daily wages or daily earnings of females under 15 years.	Wages per dozen, 100, move, etc., paid males 16 years old and upward.	Wages per dozen, 100, move, etc., paid males under 16 years.	Wages per dozen, 100, move, etc., paid females 15 years old and upward.	Wages per dozen, 100, move, etc., paid females under 15 years.
Manager.....							
Pressers .....							
Finishers.....							
Gatherers.....							
Stickers-up.....							
Cleaning-off boys.....							
Carrying-in boys.....							
Mold holders.....							
Blowers .....							
Cutters .....							
Engravers .....							
Mold makers .....							
Machinists .....							
Mixers .....							
Teasers .....							
Pot fillers.....							
Pot makers.....							
Clay trampers.....							
Packers.....							
Drivers .....							
Laborers .....							
Engineers .....							

## SPECIAL SCHEDULE No. 16c.—GLASS: GREEN AND BLACK GLASS.

State; County; Post-office; S. D.; E. D. .... Special Agent or Enumerator.

Name of establishment; Street and No.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the works are not operated during the summer, the year may be regarded as covering what is known as the "fire of '89 and '90," which closed June 30, 1890. In case the period of firing is taken as the year, all statements should cover twelve months beginning July 1, 1889, and ending June 30, 1890.

(Read carefully the explanatory notes.)

[Inquiries numbered 1 and 2 in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 3. Name of works and classes of glass manufactured:

(a) Name of works.

(b) Classes of glass.

[Inquiries numbered 4 to 6, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced; under "Miscellaneous items" (Inquiry 5) in this schedule the following note is appended: Cost of ordinary repairs to furnaces will be reported under the head of "Materials used," and must not be included here.]

## 408 HISTORY AND GROWTH OF THE UNITED STATES CENSUS

## 7. Materials used:

NOTE.—The cost of superintendence, rent, and other general expenses of a manufacturing establishment are not to be included in materials. The ton of 2,000 pounds should always be used.

Kinds.	Quantities.	Cost at the factory using them, including freight charges.
Mixing sand .....	tons	
Soda ash (carbonate of soda) .....	tons	
Salt cake (sulphate of soda) .....	tons	
Salt (chloride of sodium) .....	tons	
Lime .....	bushels	
Limestone .....	tons	
Red lead (litharge) .....	pounds	
Black lead .....	pounds	
Arsenic .....	pounds	
Cannel coal .....	pounds	
Manganese .....	pounds	
Cobalt .....	pounds	
Zaffer .....	pounds	
Fire clay or pot clay (American) .....	pounds	
Fire clay or pot clay (English) .....	pounds	
Fire clay or pot clay (German) .....	pounds	
Pots (not including those made at works) .....	number	
Charcoal .....	bushels	
Coal .....	tons	
Coke .....	tons	
Wood .....	cords	
Lumber (including that in boxes purchased) .....	thousand feet	
Casks and barrels .....	number	
Nails .....	kegs	
Straw and hay .....	tons	
Supplies used for ordinary repairs of furnaces .....		
All other materials .....		
Total cost of all materials .....		

## 8. Goods manufactured:

NOTE.—The value of the products means the price charged at the factory, not including commissions or expenses of sales department. Estimate value of products unsold at their present selling value.

Kinds.	Quantities.	Values.
Green and black bottles (above 8-ounce, not including fruit jars or beer bottles) .....	gross	
Vials (8-ounce and under) .....	gross	
Beer bottles .....	gross	
Fruit jars .....	gross	
Demi-johns .....	gross	
Carboys .....	number	
All other products, naming them, with quantities and values in each case: [3 blank lines.]		
Total value of all products .....		

[Inquiries numbered 9 to 12, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 13. Characteristics of factory plant:

Number of furnaces owned or operated.	Kind of furnace.	Kind of fuel used in each furnace.	Number of pots in each furnace.
(a)	(a)	(a)	(a)
Total:			Total:

a Several blank lines are printed in schedule.

## 13. Characteristics of factory plant—Continued.

Average number of shops worked at each furnace.

Glory-holes (number).

Annealing ovens (number).

Leers (number).

Grinding machines (for fruit-jar tops, etc.) (number).

Clay-grinding mills (number).

Horses (number); carts (number); drays (number).

What new constructions, in addition to old works (not including ordinary repairs), have you made during the year?

General description.	Cost.
(a)	(a)
Total cost of new constructions.....	

a Several blank lines are printed in schedule.

Have you a store for supplying operatives with necessities of life in connection with works?

## 14. Periods of payments (weekly, fortnightly, monthly, etc.).

## 15. Causes for idleness.

NOTE.—If idle during the year, state the cause, and if for several causes, as strikes, no demand, etc., give the number of working days idle from each cause.

[5 blank lines.]

## 16. Distinctive classes of employees and wages paid:

Class.	Number of males 16 years old and upward.	Number of males under 16 years.	Number of females 15 years old and upward.	Number of females under 15 years.	How is each class paid—per day, week, etc. (If rates too complex to write here, attach list to schedule.)	Daily wages or daily earnings paid males 16 years old and upward.
Managers .....						
Boos blowers .....						
Bottle blowers .....						
Vial blowers .....						
Demijohn blowers .....						
Carboy blowers .....						
Other blowers .....						
Gatherers or tending boys .....						
Sticker-up boys .....						
Finishers .....						
Carrying-in boys .....						
Laying-up boys .....						
Master teasers .....						
Fillers-in or helpers .....						
Coal wheelers .....						
Batch wheelers .....						
Teasers .....						
Mixers .....						
Lime sifters .....						
Ware boys .....						
Pot makers .....						
Pot makers' assistants .....						
Clay trampers .....						
Grinders .....						
Boos packers .....						
Demijohn coverers .....						
Packers .....						

# 410 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## 16. Distinctive classes of employees and wages paid—Continued.

Class.	Daily wages or daily earnings paid males under 16 years.	Daily wages or daily earnings paid females 15 years old and upward.	Daily wages or daily earnings paid females under 15 years.	Wages per dozen, 100, move, etc., paid males 16 years old and upward.	Wages per dozen, 100, move, etc., paid males under 16 years.	Wages per dozen, 100, move, etc., paid females 15 years old and upward.	Wages per dozen, 100, move, etc., paid children.
Managers.....							
Boss blowers.....							
Bottle blowers.....							
Vial blowers.....							
Demijohn blowers.....							
Carboy blowers.....							
Other blowers.....							
Gatherers or tending boys.....							
Sticker-up boys.....							
Finishers.....							
Carrying-in boys.....							
Laying-up boys.....							
Master teasers.....							
Fillers-in or helpers.....							
Coal wheelers.....							
Batch wheelers.....							
Teasers.....							
Mixers.....							
Lime sifters.....							
Ware boys.....							
Pot makers.....							
Pot makers' assistants.....							
Clay trampers.....							
Grinders.....							
Boss packers.....							
Demijohn coverers.....							
Packers.....							

## SPECIAL SCHEDULE No. 17.—MANUFACTURED GAS.

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.  
Name of establishment; Street and No.

The period to be covered by this return is the year beginning July 1, 1889, and ending June 30, 1890.

(Read carefully the explanatory notes.)

1. Name of corporation, firm, or individual.
2. Year in which this establishment commenced operations:
  - (a) Date of organization.
  - (b) Name at organization.
3. Capital stock:
  - Total capital stock.
  - Number of shares; par value per share.
  - Amount paid in per share.
  - Market value per share at close of year.
  - Total dividends declared during year.
  - Number of shares remaining in treasury.
4. Capital invested (both owned and borrowed, and including capital invested by owners of leased works):
  - Value of plant (the value should be estimated at what the works would cost in 1890, if then to be erected, with such allowance for depreciation as may be suitable in the individual case):
    - Land.
    - Buildings and fixtures.
    - Gas-making apparatus and machinery.
    - Gas holders.
    - Mains and services.
    - Implements, tools, horses, wagons, etc.
    - Patent rights.
    - Total.

## 4. Capital invested, etc.—Continued.

Live capital June 30, 1890:

Raw materials on hand.

Finished products on hand.

Cash on hand, surplus, reserve.

Debt, payable, unsettled ledger accounts, etc.

of the foregoing items.

Total.

Average annual allowance for depreciation of buildings and machinery.

## 5. Miscellaneous items:

Amount paid for ground rent.

Amount paid for rent of buildings.

Amount paid for rent of office.

Amount paid for taxes on real estate.

Amount paid for other taxes.

Amount paid for insurance.

Amount paid for insurance.

Amount paid for insurance.

Amount paid for repairs.

Amount paid for royalties.

Amount paid for interest.

Amount paid for sundries.

Total.

## 6. Labor and wages:

NOTE.—Wages paid.

Operatives, engineers, foremen or superintendents, etc.

Males above 16 years.

Children.

Officers or firm.

Males.

Females.

Clerks or salesmen.

Males above 16 years.

Females above 16 years.

Children.

Watchmen.

Males above 16 years.

Children.

Total.

Total.

Total.

Total.

Total.

Total.

Total.

Total.

Total.

412 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

7. Materials used—Continued.

Kinds.	Quantities.	Cost at the works using them, including freight charges.
Coking coal.....	tons	
Cannel coal.....	tons	
Anthracite coal (in water-gas generators).....	tons	
Anthracite coal (under boilers).....	tons	
Slack.....	tons	
Bituminous coal (in water-gas generators).....	tons	
Bituminous coal (under boilers).....	tons	
Coke (in water-gas generators).....	bushels	
Coke (under retorts).....	bushels	
Coke (under boilers).....	bushels	
Crude oil (under boilers).....	barrels	
Crude oil (for gas making).....	barrels	
Prepared, or gas oil.....	barrels	
Naphtha.....	gallons	
Natural gas (for gas making).....	feet	
Natural gas (under retorts).....	feet	
Natural gas (under boilers).....	feet	
Wood.....	cords	
Resin.....	barrels	
Oxide of iron.....	bushels	
Lime.....	bushels	
Other means of purification (specifying kinds, quantities, and cost):		
[6 blank lines.]		
All other materials.....		
Total cost of all materials.....		

8. Product of works:

NOTE.—Values should be estimated upon net selling prices.

Kinds.	Quantities.	Value.
Group 1—Manufactured gas:		
Coal gas.....	number thousand feet	
Water gas (without use of natural gas).....	number thousand feet	
Water gas (with use of natural gas).....	number thousand feet	
Oil gas.....	number thousand feet	
Wood gas.....	number thousand feet	
Fuel gas (noncarbureted).....	number thousand feet	
All other kinds (specify name, quantity, and value of each):	number thousand feet	
[4 blank lines.]		
Total.....		
Group 2—By-products:		
Coke.....	bushels	
Tar.....	gallons	
Ammoniacal liquor.....	gallons	
All other products.....		
Total.....		
Gross value of all products.....		
Gas used at offices or works.....		
By-products used at works.....		
Gas made and unaccounted for.....		
Total.....		
Net value of all products.....		

9. Operation of works:

NOTE.—The entire twelve months of the year should be accounted for in the answers to question 9.

Number of months in operation.

Number of months idle.

Cause of idleness.

Number of gangs employed:

May 1 to November 1.

November 1 to May 1.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 413

[Inquiries numbered 10 to 12, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 13. Shifts of laborers and day and night labor:

Number of shifts.

Number of hours in each shift.

### Day and night labor:

Length of day service, in hours.

Length of night service, in hours.

Number of hours Sunday labor.

## 14. Gas made in previous years:

Kinds.	Year ending June 30, 1870.		Year ending June 30, 1880.	
	Quantity in cubic feet.	Average net price per 1,000 feet.	Quantity in cubic feet.	Average net price per 1,000 feet.
Coal gas .....				
Water gas .....				
Oil gas .....				
Wood gas .....				
Resin gas .....				
Other kinds (naming them):				
[4 blank lines.]				

## 15. Gas sold during year ending June 30, 1890:

For illumination—feet; value.

For power—feet; value.

For fuel (other than for power)—feet; value.

## 16. Gas manufactured and not sold:

Used at offices and works—feet; value.

Unaccounted for—feet; value.

## 17. Average yield of gas:

Per pound of coking coal—feet.

Per gallon of oil—feet.

Per cord of wood—feet.

Noncarbureted gas from ton of coal—feet.

Pounds of coal per 1,000 feet of water gas.

Pounds of coke per 1,000 feet of water gas.

## 18. By-products:

Coke—bushels per ton of coal carbonized.

Tar—gallons per ton of coal carbonized.

Ammoniacal liquor, in terms of 10-ounce liquor—gallons per ton.

## 19. Gas-making plant at close of year:

### Coal-gas benches:

Number benches of 1's.

Number benches of 2's.

Number benches of 3's.

Number benches of 4's.

Number benches of 5's.

Number benches of 6's.

Number benches of 7's.

Number benches of 8's.

Number benches of 9's.

Regenerative benches.

### Water-gas generators:

Number of generators.

Total capacity per 24 hours—feet.

Process in use.

### Oil retorts:

Capacity per 24 hours—feet.

Process used.

### Fuel gas:

Number of generators.

Capacity per 24 hours—feet.

Process in use.

Other gas-generating apparatus.

[illegible]

**26. Consumers' meters:**

State number and sizes of meters in use (including ordinary stock carryings) according to the following table:

[illegible]

**27. Selling prices during year:**

Prices at which gas was sold for illumination at beginning and close of year:

Quantities per month (feet).	Gross.		Net.	
	July 1, 1889.	June 30, 1890.	July 1, 1889.	June 30, 1890.
1,000 or less .....				
Over 1,000 and less than 5,000 .....				
Over 5,000 and less than 10,000 .....				
Over 10,000 and less than 15,000 .....				
Over 15,000 and less than 20,000 .....				
Over 20,000 .....				

(If company has printed tables of rates, please inclose two copies. Make the answer as full and complete as possible.)

Prices at which gas was sold for fuel and power at beginning and close of year:

Quantities per month (feet).	Gross.		Net.	
	July 1, 1889.	June 30, 1890.	July 1, 1889.	June 30, 1890.
1,000 or less .....				
Over 1,000 and less than 5,000 .....				
Over 5,000 and less than 10,000 .....				
Over 10,000 and less than 15,000 .....				
Over 15,000 and less than 20,000 .....				
Over 20,000.....				

(If company has printed tables of rates, please inclose two copies. Make the answer as full and complete as possible.)

28. Gas sold for fuel and power:

If reduced rates are charged for gas used for fuel and power purposes, state—  
How long has company been furnishing gas at such reduced rates?

What is judgment of company concerning the benefits to company from such reductions in rates, as drawn from its experience?

If separate meters are furnished where gas is used for fuel and power purposes, state—

Are such additional meters charged for, in rental or otherwise?

How long has this system of separate meters been in operation by company?

What is judgment of company concerning the benefits to company from such system, as drawn from its experience?

29. Gas stoves, heaters, etc.:

If gas stoves, heaters, etc., are sold by company, state—

Does company sell at cost?

Does company set free of charge to consumer?

**Does company rent?**

# 416 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## 29. Gas stoves, heaters, etc.—Continued.

If gas stoves, heaters, etc., are sold by company, state—

On what system are rental charges based?

Is selling price based on amount of consumption of gas?

If so, how is it so based?

Does company advertise sales or rentals?

If so, how is advertising done?

Number of stoves and heaters sold by company during year.

Estimate amount of gas consumed by stoves and heaters sold during year.

Total value of such sales during year.

Are gas stoves, heaters, etc., sold in company's territory by resident parties other than company's agents?

Number of gas stoves and heaters in use in company's territory at close of year.

Is this number definite or approximate?

Does company sell gas fixtures?

Does company do gas fitting?

Does company do plumbing?

## 30. Gas engines:

If gas engines are sold by company, state—

Does company sell at cost?

Does company set at cost?

Does company rent?

On what system are rental charges based?

What special inducements, if any, are made to induce the use of gas engines?

Are gas engines sold in company's territory by resident parties other than company's agents?

Number of gas engines set during year.

Estimated amount of gas consumed yearly by engines set during year.

Total number of gas engines in use in company's territory at close of year.

Is this number definite or approximate?

## 31. Gas holders:

State number and kinds of holders owned or leased by company at close of year, with capacity of each (in feet), according to the following table:

Kind.	Number.	Capacity.	Kind.	Number.	Capacity.
(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

## 32. Station meters:

In use by company at close of year:

Number.

Total capacity.

Added during year:

Number.

Capacity.

Total estimated value (at cost of replacement).

## 33. Services and meters:

Are services put in free or are they charged for?

Are meters set free or are settings charged for?

Are meter rents charged?

## 34. Regenerative or high-power lamps:

If regenerative gas lamps are in use in company's territory, state the kind or kinds in use at close of year, with number of each kind.

Kind.	No.	Kind.	No.

## 34. Regenerative or high-power lamps—Continued.

If high-power gas lamps other than regenerative are in use in such territory, state the kind or kinds in use at close of year, with number of each kind.

Kind.	No.	Kind.	No.

If any of the above lamps are sold by company, state kind or kinds sold during year, with number of each kind.

Kind.	No.	Kind.	No.

Does company rent lamps; if so, on what rental basis?

If such lamps are sold or rented in company's territory by resident parties other than company's agents, state, if possible—

Name.

Address.

## 35. Incandescent gas lighting:

If incandescent gas lighting is done by company, or through its agency, state kind or kinds of burners used, with number in use at close of year.

Kind.	No.	Kind.	No.

Kind of gas sold for use with burners.

Estimated quantity of gas consumed by such burners during year—feet.

Does company furnish burners free of charge?

Does company sell burners?

Does company rent burners?

If company rents burners, on what are rental charges based?

If such burners are sold or rented by resident parties other than company's agents, state—

Name.

Address.

## 36. Candlepower:

Average in 1870; 1880.

Average during year.

At close of year.

## 37. Consumers and lights:

Average number consumers—1870; 1880.

Average number consumers during year.

Number consumers at close of year.

Average number lights—1870; 1880.

Average number lights during year.

Number lights at close of year.

## 38. Street lamps:

Number of gas lamps at close of year.

Gas consumed per year—feet.

Price (yearly, per lamp).

Number of gasoline lamps operated by company.

Price (yearly, per lamp).

418 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

39. Street lamps in 1870:  
 Number of lamps.  
 Gas consumed per year—feet.  
 Price (yearly, per lamp).
40. Street lamps in 1880:  
 Number of lamps.  
 Gas consumed per year—feet.  
 Price (yearly, per lamp).
41. Street-light service:  
 Number hours per year lamps are lighted.  
 Schedule used.  
 Does company or city light lamps?  
 Does company or city extinguish lamps?  
 Does company or city clean lamps?  
 Does company or city repair lamps?
42. City consumption other than street lighting:  
 In 1870—feet; price.  
 In 1880—feet; price.  
 During year—feet; price.
43. Electric lighting by gas companies:  
 Does company furnish electric lights?  
 When was electric-lighting plant started?  
 Capacity of electric-light plant at close of year:  
   Arcs—public; commercial.  
   Incandescents—public; commercial.  
 Increase of electric-light plant during year:  
   Arcs; incandescents.  
 Has electric-lighting plant produced a net profit during year?  
 Amount invested in electric-lighting plant.
44. Collection of consumers' bills:  
 If discounts are allowed, state—  
   Number of days of grace.  
   Discount or discounts allowed.  
 Are bills paid at company's office or collected by company's collectors?
45. Ownership of company's stock:  
 NOTE.—It is desired that this question be answered as closely as possible.  
   Number shares owned by males.  
   Number shares owned by females.  
   Number shares owned by residents of state.  
   Number shares owned by nonresidents of state.  
   Number shares owned by residents of foreign countries.
46. Rental income:  
 Where separate rental accounts are kept, state amounts derived during year from the following sources:  
   Rent of meters.  
   Rent of gas stoves, heaters, etc.  
   Rent of gas engines.  
   Rent of gas lamps.  
   Rent of real estate.
47. Sundry expenses:  
 Where separate accounts are kept under heads named, state amounts paid during year for the following items:  
   Repairing meters.  
   Repairing gas lamps.  
   Lighting and extinguishing gas lamps.  
   Legal expenses.  
   Bad debts (uncollectible).
48. Gas inspections:  
 Is the gas furnished subject to inspections for impurities?  
 State inspectors; city inspectors?  
 What are the regulations governing such inspections?
49. Candlepower restrictions:  
 Are any legal restrictions imposed concerning the candlepower of the gas furnished to public or private consumers?  
 If any such exist, state what they are.
50. Rights of companies in opening streets, etc.:  
 What are the rights of gas companies in your territory as relate to opening streets, laying mains, repairing mains, putting in services, etc.?

**SPECIAL SCHEDULE No. 17b.—MANUFACTURED GAS: Isolated plant lighting.**

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.

Name of establishment; Street and No.

1. Name of establishment.
2. Location.
3. System of gas manufacture employed.
4. Capital actually invested in gas plant.
5. Materials used during the year (twelve months ending June 30, 1890); quantity.  
Total cost of materials for year.
6. Total wages paid for gas-plant labor during the year.  
NOTE.—Where the labor employed on gas plant is not given solely to such service, but is included in account with other labor, estimate the proportion that should properly be charged to gas plant.
7. Daily capacity of plant, in feet; in number of lights furnished.  
NOTE.—In cases where the capacity of the plant is generally estimated by the number of lights furnished, answer the latter part of this question only.
8. Total amount of gas manufactured during the year—feet.
9. Average number of lights furnished during the year.
10. Total number of lights furnished at the close of the year.
11. Is any of the gas used for fuel purposes; how much has been so used during the year—feet.  
NOTE.—Where gas has been so used, and no definite measure taken, estimate quantity and give answer as approximate.
12. Is any gas sold to outside consumers; state quantity so sold during the year?  
For light—feet; price per 1,000 feet.  
For fuel—feet; price per 1,000 feet.
13. If gas plant has been idle at any time during the year, state number or months idle.

**SPECIAL SCHEDULE No. 17c.—MANUFACTURED GAS: Railway car lighting.**

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.

Name of establishment; Street and No.

1. Name of company.
2. Location of principal office.
3. Does company light its cars with gas; with electricity; with oil?  
NOTE.—If no gas lighting is done, questions from No. 4 to No. 18, inclusive, require no answers.
4. Does company own gas works?
5. If not, from where is the gas taken?
6. If company owns gas works, where are works located?
7. Amount of capital actually invested in gas works.
8. System or process employed.
9. Average number of hands employed in gas works during the year.  
NOTE.—The period to be covered by this return is the year beginning July 1, 1889, and ending June 30, 1890.
10. Total amount of wages paid gas-works employees during the year.
11. Total cost of materials used in manufacture of gas during the year.
12. If gas is purchased, cost per 1,000 feet.
13. Total consumption of gas during the year—feet.
14. Average number of cars lighted by gas during the year.
15. Average number of lights during the year.
16. Number of cars lighted at close of the year.
17. Number of lights at close of the year.
18. When did company begin to use gas for car lighting?
19. If change has been made from use of gas, give date of such change.
20. Is gas manufactured by company used for other purposes than car lighting; total consumption for such purposes during the year, in feet.

**SPECIAL SCHEDULE No. 17d.—MANUFACTURED GAS: Marine lighting.**

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.

Name of establishment; Street and No.

1. Name of company, firm, or individual.
2. Location of principal office.

## 420 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

3. Does company or proprietor own works?
4. If not, from where is the gas taken?
5. If works are owned, where are they located?
6. Amount of capital actually invested in works.
7. System or process employed.
8. Average number of hands employed during the year.  
 Note.—The period to be covered by this return is the year ended June 30, 1890.
9. Total amount of wages paid during the year.
10. Total cost of material used during the year.
11. If gas is purchased, cost per 1,000 feet.
12. Total consumption of gas during the year—feet.
13. Average number of vessels lighted by gas during the year.
14. Average number of lights during the year.
15. Number of lights at the close of the year.
16. When did company begin to use gas for vessel lighting?
17. If change has been made from use of gas, give date of such change.
18. Is gas manufactured by company used for other purposes than vessel lighting?  
 Total consumption for such purposes during the year—feet.

### SPECIAL SCHEDULE No. 18.—IRON AND STEEL.

(FOR EXECUTIVE OFFICES.)

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.  
 Name of establishment; Street and No.

#### IRON AND STEEL WORKS.

Embracing blast furnaces, iron and steel rolling mills, Bessemer steel works, open-hearth steel works, crucible and miscellaneous steel works, iron ore forges, and pig and scrap iron bloomaries.

All questions refer to the year embraced between July 1, 1889, and June 30, 1890.

1. Name of corporation, firm, or individual.
2. Live capital June 30, 1890:  
 Raw materials on hand.  
 Stock in process, and finished products on hand.  
 Cash on hand, bills receivable, unsettled ledger accounts, and sundries not included in any of the foregoing items.  
 Total.
3. Miscellaneous items:  
 Amount paid for rent, power, and heat.  
 Amount paid for taxes.  
 Amount paid for insurance.  
 Amount paid for commissions and expenses of sales department.  
 Amount paid for interest on cash used in the business.  
 Amount paid for all sundries (not reported in any of the foregoing items).  
 Total.
4. Officers or firm members:

	Number.	Total amount paid for salaries during the year.
Males .....		
Females .....		
Total .....		

### SPECIAL SCHEDULE No. 18a.—IRON AND STEEL: BLAST FURNACES.

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.  
 Name of establishment; Street and No.

All questions refer to the year embraced between July 1, 1889, and June 30, 1890.  
*ons to be of 2,000 pounds.)*

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 421

(Read carefully the explanatory notes appended to this schedule.)

1. Name of corporation, firm, or individual.
2. Capital invested (both owned and borrowed):  
 Value of plant (the value should be estimated at what the works would cost in 1890, if then to be erected, with such allowance for depreciation as may be suitable in the individual case):  
 Land.  
 Furnaces and buildings.  
 Machinery, tools, and implements.  
 Total.  
 Average annual allowance since June 1, 1880, for depreciation of buildings and machinery.
3. Amount paid for repairs, ordinary, of buildings and machinery during the year ended June 30, 1890.
4. Number of completed blast-furnace stacks.
5. Total daily capacity, in tons of 2,000 pounds, of pig iron.
6. Number and kind of hot-blast stoves.
7. Labor and wages:  
 NOTE.—Wages paid should include board or rent furnished as part compensation. Wages paid for repairs should not be included in this question.

Classes.	Average number employed during the year.	Total amount paid in wages during the year.
Operatives, engineers, and other skilled workmen, overseers, and foremen or superintendents (not general superintendents or managers):		
Males above 16 years.....		
Females above 15 years.....		
Children.....		
Clerks or salesmen:		
Males above 16 years.....		
Females above 15 years.....		
Children.....		
Watchmen, laborers, teamsters, and other unskilled workmen:		
Males above 16 years.....		
Females above 15 years.....		
Children.....		
Total.....		

Weekly rates of wages paid and average number of hands employed at each rate.

[The table of weekly rates in general schedule No. 3 (inquiry 6) is common to the table in this special schedule (inquiry 7) and is not here reproduced.]

Largest number of hands employed at any time during the year.

Smallest number of hands employed at any time during the year.

8. Materials used (the ton referred to is the ton of 2,000 pounds):

NOTE.—Great care should be exercised in answering question 8, especially in the case of furnaces where no book accounts are kept. The cost of superintendence, rent, and other general expenses of the works are not to be included in materials.

Kinds.	Quantities.	Cost at the furnace using them, including freight charges.
Domestic iron ore.....	tons	
Foreign iron ore.....	tons	
Fluxing material.....	tons	
Anthracite coal.....	tons	
Bituminous coal used raw.....	tons	
Coke.....	tons	
Charcoal.....	bushels	
Mill cinder, scrap, etc.....	tons	
All other materials.....		
Total cost of all materials.....		

## 422 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### 9. Products (the ton referred to is the ton of 2,000 pounds):

NOTE.—Great care should be exercised in answering question 9, especially in the case of furnaces where no book accounts are kept. The value of the product means the price charged at the furnace, not including commissions or expenses of sales department.

Kinds.	Quantities.	Values.
Cold-blast charcoal pig iron .....	tons	
Hot or warm blast charcoal pig iron .....	tons	
Anthracite pig iron .....	tons	
Mixed anthracite coal and coke pig iron .....	tons	
Coke and bituminous coal pig iron .....	tons	
Castings produced direct from furnace, not included above .....	tons	
Spiegeleisen and ferro-manganese, not included above .....	tons	
All other products, including amounts received for custom work and repairing .....		
Total value of all products .....		

### 10. Months in operation:

NOTE.—Manufacturers in answering this question will give the information in months and fraction of a month. If the furnace stops on Sunday, the fact should be stated.

Number of months in operation during the year.

Number of months idle.

### 11. Number of hours in the ordinary day of labor:

May to November.

November to May.

### 12. Power used in manufacture:

If steam power is used, state—

Number of boilers.

Number of engines.

Horsepower.

If water power is used, state—

Number of water wheels.

Horsepower.

Number of turbine wheels.

Horsepower.

#### EXPLANATORY NOTES.

In all cases where blast-furnace proprietors either own or operate iron-ore mines, coal mines, coke ovens, foundries, cast-iron pipe works, etc., the capital invested, hands employed, and wages paid in these industries should not be included in the return for their blast-furnace plant. Pig-iron manufacturers will please inform this office in all cases where they are engaged in such operations, so that blanks may be forwarded to them covering these special branches of industry.

Where blast-furnace proprietors also operate a rolling mill, steel works, iron-ore forge, or pig and scrap bloomery, the return for each establishment must be made separately, and extra blanks for this purpose will be sent them. In cases where the entire plant is so blended as to make this separation difficult, manufacturers will be justified in closely estimating what part belongs to each department.

*Idle furnace plants.*—Where a blast-furnace plant has not been in operation at any time during the census year, it will be necessary for the owners of such works to fill out questions 1, 2, 3, 4, 5, 6, 10, and 12, relating to capital invested and description of works.

*Repairs to furnace plants.*—If workmen have been employed in relining the furnace stack or in performing other ordinary repairs to a furnace plant during the year ended June 30, 1890, the total cost of the work done, including wages paid, materials used, etc., should be included in question 3, "Amount paid for repairs, ordinary, of buildings and machinery." Where, however, extensive repairs have been made, such as remodeling the stack, erecting new hot-blast stoves, etc., no other return will be necessary for the cost of these repairs except such as will be shown in question 2 by the increased value of furnaces and buildings.

*Location of works.*—Where the plant of a blast-furnace company is located in two or more counties a separate return for each county will be required. Duplicate schedules will be sent in all cases where this office is already advised that works are

located in two or more counties, but as they may not be sent to all who should receive them, manufacturers will promptly write to this office for such duplicates as may be needed.

*Question 7.*—Great care should be exercised by iron and steel manufacturers in answering this question, especially in those cases where the works have not been in operation during the entire twelve months of the year ended June 30, 1890. In computing the average number of hands employed during the year it will be necessary for manufacturers whose works have been idle for any part of the year to consider the time the works were idle as well as the time they were in operation. If this is not done, the average yearly wages of workmen will not be accurately shown. As an illustration, where a plant has been in operation only three months of the census year, and during that time has employed on an average 100 men each month, the average number employed during the year would clearly be but 25. Wages paid should include board or rent furnished as part compensation. Wages paid for repairs to furnace plants should not be included in this item.

*Questions 8 and 9.*—Pig-iron manufacturers will please note that we desire the *total* quantity and value of each raw material used and product made during the year beginning July 1, 1889, and ending June 30, 1890, and not the daily average of materials and products. Where works have been in operation only part of the year the quantities and values of the materials used and products made during this period must be given. The value of the product means the price charged at the furnace, not including commissions or expenses of sales department. The cost of superintendence, rent, and other general expenses of the establishment are not to be included in materials.

SPECIAL SCHEDULE No. 18*b*.—IRON AND STEEL: ROLLING MILLS.

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.  
Name of establishment; Street and No.

All questions refer to the year embraced between July 1, 1889, and June 30, 1890. All tons to be of 2,000 pounds.

*(Read carefully the explanatory notes appended to this schedule.)*

1. Name of corporation, firm, or individual.
2. Name of place, county, and state where your works are located.
3. Capital invested (both owned and borrowed):
  - Value of plant (the value should be estimated at what the works would cost in 1890, if then to be erected, with such allowance for depreciation as may be suitable in the individual case):
    - Land.
    - Buildings.
    - Machinery, tools, and implements.
    - Total.
4. Average annual allowance since June 1, 1880, for depreciation of buildings and machinery.
5. Amount paid for repairs, ordinary, to buildings and machinery during year ended June 30, 1890.
6. Machinery, etc.:
  - Number of forge fires.
  - Number of single puddling furnaces, counting each double furnace equal to two single ones.
  - Number of heating furnaces.
  - Number of gas producers using coal; kind of producer.
  - Number of gas producers using oil; kind of producer.
  - Number of hammers.
  - Number of cut-nail machines.
  - Number of trains of rolls.
  - Total daily capacity, double turn, in tons, of rolled iron or steel.
  - In what part of your works do you use natural gas?

## 424 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## 7. Labor and wages:

Classes.	Average number employed during the year.	Total amount paid in wages during the year.
Puddlers, heaters, rollers, engineers, and other skilled workmen, and foremen or superintendents (not general superintendents or managers):		
Males above 16 years.....		
Females above 16 years.....		
Children.....		
Clerks or salesmen:		
Males above 16 years.....		
Females above 16 years.....		
Children.....		
Watchmen, laborers, teamsters, and other unskilled workmen:		
Males above 16 years.....		
Females above 16 years.....		
Children.....		
Total.....		

## Weekly rates of wages paid and average number of hands employed at each rate.

[The table of weekly rates in general schedule No. 3 (Inquiry 6) is common to the table in this special schedule (Inquiry 7) and is not here reproduced.]

8. Largest number of hands employed at any time during the year.

9. Smallest number of hands employed at any time during the year.

10. Materials used (ton referred to is the ton of 2,000 pounds):

Kinds.	Quantities.	Cost.
Iron ore.....	tons	
Pig iron.....	tons	
Old iron rails.....	tons	
Other old or scrap iron.....	tons	
Old steel rails and steel rail ends.....	tons	
Other old or scrap steel.....	tons	
Hammered iron ore blooms.....	tons	
Hammered pig or scrap blooms.....	tons	
Purchased muck bar.....	tons	
Purchased Bessemer steel ingots, blooms, billets, or slabs.....	tons	
Purchased open-hearth steel ingots, blooms, billets, or slabs.....	tons	
Purchased crucible, Clapp-Griffiths, or Robert-Bessemer steel.....	tons	
Purchased wire rods.....	tons	
Anthracite coal.....	tons	
Anthracite culm.....	tons	
Bituminous coal.....	tons	
Bituminous slack.....	tons	
Coke.....	tons	
Charcoal.....	bushels	
Oil.....	barrels	
All other materials, including mill supplies and amounts paid for natural gas used for fuel.....		
Total cost of all materials.....		

11. Products—Iron (ton referred to is the ton of 2,000 pounds):

Iron products.	Quantities.	Value.
Iron rails.....	tons	
Bar iron.....	tons	
Rod iron, except wire rods.....	tons	
Iron wire rods.....	tons	
Iron structural shapes.....	tons	
Hoop iron.....	tons	
Skelp iron.....	tons	
Rolled iron car axles.....	tons	
Hammered iron car axles.....	tons	
Muck bar produced for sale.....	tons	
Sheet iron produced.....	tons	
Boiler-plate iron.....	tons	
Nail-plate iron.....	tons	
All other plate iron.....	tons	
Iron cut nails.....	kegs of 100 lbs.	
Combined iron and steel cut nails.....	kegs of 100 lbs.	
Iron wire nails.....	kegs of 100 lbs.	
Iron wire.....	tons	
All other rolled iron products.....	tons	
All other hammered iron products.....	tons	

## 12. Products—Bessemer steel (ton referred to is the ton of 2,000 pounds):

Bessemer steel products.	Quantities.	Values.
Bessemer steel rails.....	tons	
Bessemer steel bars.....	tons	
Bessemer steel rods, except wire rods.....	tons	
Bessemer steel-wire rods.....	tons	
Bessemer steel hoops.....	tons	
Bessemer steel structural shapes.....	tons	
Bessemer steel sheets.....	tons	
Bessemer steel boiler plates.....	tons	
Bessemer steel nail plate.....	tons	
All other Bessemer steel plates.....	tons	
Bessemer steel rolled car axles.....	tons	
Bessemer steel hammered car axles.....	tons	
Bessemer steel cut nails.....	kegs of 100 lbs.	
Bessemer steel-wire nails.....	kegs of 100 lbs.	
Bessemer steel wire.....	tons	
Other Bessemer steel rolled products.....	tons	
Other Bessemer steel hammered products.....	tons	

## 13. Products—Open-hearth steel (ton referred to is the ton of 2,000 pounds):

Open-hearth steel products.	Quantities.	Values.
Open-hearth steel rails.....	tons	
Open-hearth steel bars.....	tons	
Open-hearth steel rods, except wire rods.....	tons	
Open-hearth steel-wire rods.....	tons	
Open-hearth steel hoops.....	tons	
Open-hearth steel structural shapes.....	tons	
Open-hearth steel sheets.....	tons	
Open-hearth steel boiler plates.....	tons	
Open-hearth steel nail plate.....	tons	
All other open-hearth steel plates.....	tons	
Open-hearth steel rolled car axles.....	tons	
Open-hearth steel hammered car axles.....	tons	
Open-hearth steel cut nails.....	kegs of 100 lbs.	
Open-hearth steel-wire nails.....	kegs of 100 lbs.	
Open-hearth steel wire.....	tons	
Other open-hearth steel rolled products.....	tons	
Other open-hearth steel hammered products.....	tons	

## 14. Products—Clapp-Griffiths, Robert-Bessemer, and crucible steel (tons of 2,000 pounds):

Other steel products.	Quantities.	Values.
All Clapp-Griffiths steel products.....	tons	
All Robert-Bessemer steel products.....	tons	
All crucible steel products.....	tons	

## 15. Value of finished products:

Total value of all finished iron products.

Total value of all finished Bessemer steel products.

Total value of all finished open-hearth steel products.

Total value of all other finished steel products.

Value of all other products, including amounts received for custom work and repairing.

Total value of all finished products.

## 16. Months in operation:

NOTE.—Manufacturers in answering this question will give the information in months and fractions of a month. The entire twelve months of the year should be accounted for thus: Twelve months on single turn; or, eight months on single turn and four months on double turn; or, ten months on double turn and two months idle.

On single turn.

On double turn.

Idle.

## 17. Number of hours in the ordinary day of labor:

May to November.

November to May.

## 18. Power used in manufacture:

If power is supplied by other establishments, state—

Kind of power supplied; horsepower.

Name of establishment supplying the same.

If steam power is used, state—

Number of boilers.

Number of engines.

Horsepower.

If water power is used, state—

Number of water wheels.

Horsepower.

Number of turbine wheels.

Horsepower.

## EXPLANATORY NOTES.

Where proprietors of iron and steel rolling mills also operate a blast furnace, crucible steel works, or forge and bloomery, the return for each establishment must be made separately, and extra blanks for this purpose will be sent to them. In cases where the entire plant is so blended as to make this separation difficult, manufacturers will be justified in closely estimating what part belongs to each department.

*Idle rolling mills.*—Where a rolling mill has not been in operation at any time during the year ended June 30, 1890, it will be necessary for the owners of such works to fill out questions Nos. 1, 2, 3, 4, 5, 6, 7, 16, and 18, relating to capital invested and description of works.

*Repairs to rolling mills.*—If workmen have been employed in performing ordinary repairs to the buildings or machinery of the works during the year ended June 30, 1890, the total cost of the work done, including wages paid, materials used, etc., should be included in question No. 5—"Amount paid for repairs, ordinary, to buildings and machinery." Where, however, extensive repairs have been made, such as erecting new buildings, adding new machinery, etc., no other return will be necessary for the cost of these repairs except such as will be shown in question No. 3 by the increased value of buildings and machinery.

*Question No. 2.*—Where the plant of a rolling-mill company is located in two or more counties, a separate return for each county will be required. Manufacturers will please write to this office for such duplicate schedules as may be needed for this purpose.

*Question No. 7.*—Great care should be exercised by iron and steel manufacturers in answering this question, especially in those cases where the works have not been in operation during the entire twelve months of the year ended June 30, 1890. In computing the average number of hands employed during the year, it will be necessary for manufacturers whose works have been idle for any part of the year to consider the time the works were idle as well as the time they were in operation. If this is not done the average yearly wages of workingmen, which will be obtained by dividing the average number of hands employed by the total wages paid, will not be plainly shown. As an illustration, where a plant has been in operation only three months of the year, and during that time has employed on an average 100 men each month, the average number employed during the year would clearly be but 25. The wages of all puddlers, heaters, rollers, etc., who are paid so much per ton of iron or steel produced, should be considered as the net amount received by them after paying their helpers. The wages of all such helpers should be considered to be the total amount which is received by them, including the amounts paid them by the firm. Wages paid should include board or rent furnished as part compensation. Wages paid for repairs to rolling-mill plants should not be included in this question.

*Questions Nos. 10, 11, 12, 13, and 14.*—Steel manufacturers will please note that we desire the total quantity of each raw material used and product made during the year ended June 30, 1890, and not the daily average of materials and products. Where works have been in operation only a part of the year the quantities of the raw materials used and products made during this period must be given.

*Question No. 15.*—By the term "finished product" is understood to mean the form in which the manufactured article is sold by the works producing it. Works producing muck bar and selling it in that form will consider such material as a finished product of their works and include its value in the total value of finished products, notwithstanding that this material will be rerolled by the mill purchasing it. The value of the product means the price charged at the works, not including commissions or expenses of sales department.

## SPECIAL SCHEDULE No. 18c.—IRON AND STEEL: BESSEMER, OPEN-HEARTH, CLAPP-GRIFFITHS, AND ROBERT-BESSEMER STEEL WORKS.

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.

Name of establishment; Street and No.

(All questions refer to the year embraced between July 1, 1889, and June 30, 1890.  
All tons to be of 2,000 pounds.)

(Read carefully the explanatory notes appended to this schedule.)

1. Name of corporation, firm, or individual.
2. Name of place, county, and state where your works are located.
3. Capital invested (both owned and borrowed):  
Value of plant (the value should be estimated at what the works would cost in 1890, if then to be erected, with such allowance for depreciation as may be suitable in the individual case):  
Land.  
Buildings.  
Machinery, tools, and implements.  
Total.
4. Average annual allowance since June 1, 1880, for depreciation of buildings and machinery.
5. Amount paid for repairs, ordinary, to buildings and machinery during year ended June 30, 1890.
6. Machinery, etc.:  
Number of Bessemer converters; maximum capacity of each in tons.  
Total daily capacity, double turn, in tons, of Bessemer steel ingots.  
Number of Clapp-Griffiths converters; maximum capacity of each in tons.  
Total daily capacity, double turn, in tons, of Clapp-Griffiths steel ingots.  
Number of Robert-Bessemer converters; maximum capacity of each in tons.  
Total daily capacity, double turn, in tons, of Robert-Bessemer steel ingots.  
Number of open-hearth furnaces; maximum capacity of each in tons.  
Total daily capacity, double turn, in tons, of open-hearth steel ingots.  
Number of heating furnaces.  
Number of hammers.  
Number of gas producers using coal; kind of producer.  
Number of gas producers using oil; kind of producer.  
Number of soaking pits.  
Number of cut-nail machines.  
Number of trains of rolls.  
Total daily capacity, double turn, in tons, of rolled steel.
7. Labor and wages:

Classes.	Average number employed during the year.	Total amount paid in wages during the year.
Heaters, rollers, engineers, and other skilled workmen, and foremen or superintendents (not general superintendents or managers):		
Males above 16 years.....		
Females above 15 years.....		
Children.....		
Clerks or salesmen:		
Males above 16 years.....		
Females above 15 years.....		
Children.....		
Watchmen, laborers, teamsters, and other unskilled workmen:		
Males above 16 years.....		
Females above 15 years.....		
Children.....		
Total.....		

Weekly rates of wages paid and average number of hands employed at each rate.

[The table of weekly rates in general schedule No. 3 (inquiry 6) is common to the table in this special schedule (inquiry 7) and is not here reproduced.]

8. Largest number of hands employed at any time during the year.
9. Smallest number of hands employed at any time during the year.

## 428 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## 10. Materials used (ton referred to is the ton of 2,000 pounds):

Kinds.	Quantities.	Cost.
Iron ore.....	tons	
Spiegeleisen and ferro-manganese.....	tons	
All other pig iron.....	tons	
Old iron rails.....	tons	
Other old or scrap iron.....	tons	
Old steel rails and steel rail ends.....	tons	
Other old or scrap steel.....	tons	
Hammered iron-ore blooms.....	tons	
Hammered pig or scrap blooms.....	tons	
Purchased Bessemer steel ingots, blooms, billets, or slabs.....	tons	
Purchased open-hearth steel ingots, blooms, billets, or slabs.....	tons	
Purchased wire rods.....	tons	
Anthracite coal.....	tons	
Anthracite culm.....	tons	
Bituminous coal.....	tons	
Bituminous slack.....	tons	
Coke.....	tons	
Charcoal.....	bushels	
Oil.....	barrels	
All other materials, including mill supplies and amounts paid for natural gas used for fuel.....		
Total cost of all materials.....		

## 11. Products—crude steel (tons of 2,000 pounds):

Kinds.	Quantities.	Values.
Bessemer steel ingots and direct castings.....	tons	
Basic Bessemer steel ingots (not included above).....	tons	
Open-hearth steel ingots and direct castings.....	tons	
Basic open-hearth steel ingots (not included above).....	tons	
Clapp-Griffiths steel ingots and castings.....	tons	
Robert-Bessemer steel ingots and castings.....	tons	

## 12. Products—Bessemer steel (ton referred to is the ton of 2,000 pounds):

Bessemer steel products.	Quantities.	Values.
Bessemer steel rails.....	tons	
Bessemer steel bars.....	tons	
Bessemer steel rods, except wire rods.....	tons	
Bessemer steel-wire rods.....	tons	
Bessemer steel hoops.....	tons	
Bessemer steel structural shapes.....	tons	
Bessemer steel sheets.....	tons	
Bessemer steel boiler plates.....	tons	
Bessemer steel nail plate.....	tons	
All other Bessemer steel plates.....	tons	
Bessemer steel rolled car axles.....	tons	
Bessemer steel hammered car axles.....	tons	
Bessemer steel cut nails.....	kegs of 100 lbs.	
Bessemer steel-wire nails.....	kegs of 100 lbs.	
Bessemer steel wire.....	tons	
Other Bessemer steel rolled products.....	tons	
Other Bessemer steel hammered products.....	tons	

## 13. Products—Open-hearth steel (ton referred to is the ton of 2,000 pounds):

Open-hearth steel products.	Quantities.	Values.
Open-hearth steel rails.....	tons	
Open-hearth steel bars.....	tons	
Open-hearth steel rods, except wire rods.....	tons	
Open-hearth steel-wire rods.....	tons	
Open-hearth steel hoops.....	tons	
Open-hearth steel structural shapes.....	tons	
Open-hearth steel sheets.....	tons	
Open-hearth steel boiler plates.....	tons	
Open-hearth steel nail plate.....	tons	
Open-hearth steel armor plates.....	tons	
All other open-hearth steel plates.....	tons	
Open-hearth steel gun forgings.....	tons	
Open-hearth steel rolled car axles.....	tons	
Open-hearth steel hammered car axles.....	tons	
Open-hearth steel cut nails.....	kegs of 100 lbs.	
Open-hearth steel-wire nails.....	kegs of 100 lbs.	
Open-hearth steel wire.....	tons	
Other open-hearth steel rolled products.....	tons	
Other open-hearth steel hammered products.....	tons	

## 14. Products—Clapp-Griffiths and Robert-Bessemer steel (ton referred to is the ton of 2,000 pounds):

Clapp-Griffiths and Robert-Bessemer steel products.	Quantities.	Values.
Clapp-Griffiths and Robert-Bessemer steel bars.....	tons	
Clapp-Griffiths and Robert-Bessemer steel rods, except wire rods.....	tons	
Clapp-Griffiths and Robert-Bessemer steel-wire rods.....	tons	
Clapp-Griffiths and Robert-Bessemer steel hoops.....	tons	
Clapp-Griffiths and Robert-Bessemer steel sheets.....	tons	
Clapp-Griffiths and Robert-Bessemer steel boiler plates.....	tons	
Clapp-Griffiths and Robert-Bessemer steel nail plate.....	tons	
All other Clapp-Griffiths and Robert-Bessemer steel plates.....	tons	
Clapp-Griffiths and Robert-Bessemer steel-cut nails.....	kegs of 100 lbs.	
Clapp-Griffiths and Robert-Bessemer steel-wire nails.....	kegs of 100 lbs.	
Clapp-Griffiths and Robert-Bessemer steel wire.....	tons	
Other Clapp-Griffiths or Robert-Bessemer steel products.....	tons	

## 15. Value of finished products:

Total value of all finished Bessemer steel products.

Total value of all finished open-hearth steel products.

Total value of all finished Clapp-Griffiths steel products.

Total value of all finished Robert-Bessemer steel products.

Value of all other finished products, including amounts received for custom work and repairing.

Total value of all finished products.

## 16. In what part of your works do you use natural gas?

## 17. Months in operation:

NOTE.—Manufacturers in answering this question will give the information in months and fraction of a month. The entire twelve months of the year should be accounted for thus: Twelve months on single turn; or, eight months on single turn and four months on double turn; or, ten months on double turn and two months idle.

On single turn.

On double turn.

Idle.

[Inquiries numbered 10 and 11 in general schedule No. 3 are common to this special schedule (inquiries 18 and 19) and are not here reproduced.]

## EXPLANATORY NOTES.

Where proprietors of Bessemer, open-hearth, Clapp-Griffiths, or Robert-Bessemer steel works also operate a blast furnace, crucible steel works, or forge and bloomery, the return for each establishment must be made separately, and extra blanks for this purpose will be sent to them. In cases where the entire plant is so blended as to make this separation difficult, manufacturers will be justified in closely estimating what part belongs to each department.

*Idle rolling mills and steel works.*—Where rolling mills and steel works have not been in operation at any time during the year ended June 30, 1890, it will be neces-

sary for the owners of such works to fill out questions Nos. 1, 2, 3, 4, 5, 6, 7, 17, and 19, relating to capital invested and description of works.

*Repairs to rolling mills and steel works.*—If workmen have been employed in performing ordinary repairs to the buildings or machinery of the rolling mill or steel works during the year ended June 30, 1890, the total cost of the work done, including wages paid, materials used, etc., should be included in question No. 5—"Amount paid for repairs, ordinary, to buildings and machinery." Where, however, extensive repairs have been made, such as erecting new buildings, adding new machinery, etc., no other return will be necessary for the cost of these repairs except such as will be shown in question No. 3, by the increased value of buildings and machinery.

*Question No. 2.*—Where the plant of an iron and steel company is located in two or more counties, a separate return for each county will be required. Manufacturers will please write to this office for such duplicate schedules as may be needed for this purpose.

*Question No. 7.*—Great care should be exercised by iron and steel manufacturers in answering this question, especially in those cases where the works have not been in operation during the entire twelve months of the year ended June 30, 1890. In computing the average number of hands employed during the year, it will be necessary for manufacturers whose works have been idle for any part of the year to consider the time the works were idle as well as the time they were in operation. If this is not done the average yearly wages of workmen, which will be obtained by dividing the average number of hands employed by the total wages paid, will not be plainly shown. As an illustration, where a plant has been in operation only three months of the year, and during that time has employed on an average 100 men each month, the average number employed during the year would clearly be but 25. The wages of all heaters, rollers, etc., who are paid so much per ton of iron or steel produced, should be considered as the net amount received by them after paying their helpers. The wages of all such helpers should be considered to be the total amount which is received by them, including the amounts paid them by the firm. Wages paid should include board or rent furnished as part compensation. Wages paid for repairs to rolling-mill plants should not be included in this question.

*Questions Nos. 10, 11, 12, 13, and 14.*—Iron and steel manufacturers will please note that we desire the *total* quantity of each raw material used and product made during the year ended June 30, 1890, and not the daily average of materials and products. Where works have been in operation only a part of the year the quantities of the materials used and products made during this period must be given.

*Question No. 15.*—By the term "finished product" is understood to mean the form in which the manufactured article is sold by the works producing it. Thus, where steel works sell part of their production in the form of ingots, blooms, billets, slabs, or bars, such material should be considered as a finished product of the works selling it, and its value included in the total value of finished products, notwithstanding that this material may be rerolled or further manufactured by the works purchasing it. Of course, where the crude steel made by any works is converted into the most highly-finished product by the same works, the value of the latter product alone is to be included in the total value of finished products. The value of the product means the price charged at the works, not including commissions or expenses of sales department.

**SPECIAL SCHEDULE No. 18d.—IRON AND STEEL: CRUCIBLE, BLISTER, GERMAN, AND MISCELLANEOUS STEEL WORKS.**

State; County; Post-office; S. D.; E. D. . . . ., Special Agent or Enumerator.  
Name of establishment; Street and No.

(All questions refer to the year embraced between July 1, 1889, and June 30, 1890.  
All tons to be of 2,000 pounds.)

(Read carefully the explanatory notes appended to this schedule.)

1. Name of corporation, firm, or individual.
2. Name of place, county, and state where your works are located.
3. Capital invested (both owned and borrowed):
  - Value of plant (the value should be estimated at what the works would cost in 1890, if then to be erected, with such allowance for depreciation as may be suitable in the individual case):
    - Land.
    - Buildings.
    - Machinery, tools, and implements.
    - Total.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 431

4. Average annual allowance since June 1, 1880, for depreciation of buildings and machinery.
5. Amount paid for repairs, ordinary, to buildings and machinery during the year ended June 30, 1890.
6. Machinery, etc.:
  - Number of cementing furnaces.
  - Number of pot holes.
  - Number of heating furnaces.
  - Number of gas producers using coal; kind of producer.
  - Number of gas producers using oil; kind of producer.
  - Number of single puddling furnaces.
  - Number of trains of rolls.
  - Number of hammers.
  - Total daily capacity, in tons, of ingots or unwrought steel.
7. Labor and wages:

Classes.	Average number employed during the year.	Total amount paid in wages during the year.
Melters, heaters, rollers, engineers, and other skilled workmen, and foremen or superintendents (not general superintendents or managers):		
Males above 16 years .....		
Females above 16 years .....		
Children .....		
Clerks or salesmen:		
Males above 16 years .....		
Females above 16 years .....		
Children .....		
Watchmen, laborers, teamsters, and other unskilled workmen:		
Males above 16 years .....		
Females above 16 years .....		
Children .....		
Total .....		

## Weekly rates of wages paid and average number of hands employed at each rate.

[The table of weekly rates in general schedule No. 3 (Inquiry 6) is common to this special schedule (Inquiry 7) and is not here reproduced.]

8. Largest number of hands employed at any time during year.
9. Smallest number of hands employed at any time during year.
10. Materials used (ton referred to is the ton of 2,000 pounds):

Kinds.	Quantities.	Cost.
Iron ore .....	tons	
Pig iron .....	tons	
Old iron rails .....	tons	
Other old or scrap iron .....	tons	
Old steel rails and steel rail ends .....	tons	
Other old or scrap steel .....	tons	
Hammered iron-ore blooms .....	tons	
Hammered pig or scrap blooms .....	tons	
Swedish billets and bars .....	tons	
Other billets and bars .....	tons	
Anthracite coal .....	tons	
Anthracite culm .....	tons	
Bituminous coal .....	tons	
Bituminous slack .....	tons	
Coke .....	tons	
Charcoal .....	bushels	
Oil .....	barrels	
All other materials, including mill supplies and amounts paid for natural gas used for fuel .....		
Total cost of all materials .....		

# 432 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## 11. Products—Crude steel (tons of 2,000 pounds):

Crude steel.	Quantities.	Values.
Crucible cast-steel ingots .....	tons	
Blister and German steel .....	tons	
Other kinds of steel .....	tons	

## 12. Products—Finished steel (tons of 2,000 pounds):

Finished steel product.	Quantities.	Values.
Crucible cast steel, finished products .....	tons	
Other finished steel products .....	tons	
All other products, including amounts received for custom work and repairing .....		
Total value of all finished products .....		

## 13. Months in operation:

**NOTE.**—Manufacturers in answering this question will give the information in months and fraction of a month. The entire twelve months of the year should be accounted for, thus: Twelve months on single turn; or, eight months on single turn and four months on double turn; or, ten months on double turn and two months idle.

On single turn.

On double turn.

Idle.

[Inquiries numbered 10 and 11 in general schedule No. 3 are common to this special schedule (inquiries 14 and 15) and are not here reproduced.]

### EXPLANATORY NOTES.

Where proprietors of crucible, blister, German, and miscellaneous steel works also operate a Bessemer or open-hearth steel plant, the return for each establishment must be made separately, and extra blanks for this purpose will be sent to them. In cases where the entire plant is so blended as to make this separation difficult, manufacturers will be justified in closely estimating what part belongs to each department.

**Idle steel works.**—Where a steel plant has not been in operation at any time during the year ended June 30, 1890, it will be necessary for the owners of such works to fill out questions Nos. 1, 2, 3, 4, 5, 6, 13, and 15, relating to capital invested and description of works.

**Repairs to steel works.**—If workmen have been employed in performing ordinary repairs to the buildings or machinery of a steel-works plant during the year ended June 30, 1890, the total cost of the work done, including wages paid, materials used, etc., should be included in question No. 5, "Amount paid for repairs, ordinary, to buildings and machinery." Where, however, extensive repairs have been made, such as erecting new buildings, adding new machinery, etc., no other return will be necessary for the cost of these repairs except such as will be shown in question No. 3, by the increased value of buildings and machinery.

**Question No. 2.**—Where the plant of a steel company is located in two or more counties a separate return for each county will be required. Manufacturers will please write to this office for such duplicate schedules as may be needed for this purpose.

**Question No. 7.**—Great care should be exercised by iron and steel manufacturers in answering this question, especially in those cases where the works have not been in operation during the entire twelve months of the year ended June 30, 1890. In computing the average number of hands employed during the year, it will be necessary for manufacturers whose works have been idle for any part of the year to consider the time the works were idle as well as the time they were in operation. If this is not done, the average yearly wages of workmen, which will be obtained by dividing the average number of hands employed by the total wages paid, will not be plainly shown. As an illustration, where a plant has been in operation only three months of the year, and during that time has employed on an average 100 men each month, the average number employed during the year would clearly be but 25.

Wages paid should include board or rent furnished as part compensation. Wages paid for repairs to steel plants should not be included in this question.

*Questions Nos. 10, 11, and 12.*—Steel manufacturers will please note that we desire the *total* quantity of each raw material used and product made during the year ended June 30, 1890, and not the daily average of materials and products. Where works have been in operation only a part of the year the quantities of the materials used and products made during this period must be given.

*Question No. 12.*—By the term "finished product" is understood to mean the form in which the manufactured article is sold by the works producing it. Thus, where steel works sell part of their production in the form of blooms, billets, slabs, or bars, such material should be considered as a finished product of the works selling it, and its value included in the total value of finished products, notwithstanding that this material may be rerolled or further manufactured by the works purchasing it. Of course, where the crude steel made by any works is converted into the most highly-finished product by the same works, the value of the latter product alone is to be included in the total value of finished products. The value of the product means the price charged at the works, not including commissions or expenses of sales department.

**SPECIAL SCHEDULE No. 18e.—IRON AND STEEL: BLOOMARIES AND FORGES.**

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.

Name of establishment; Street and No.

(All questions refer to the year embraced between July 1, 1889, and June 30, 1890. All tons to be of 2,000 pounds.)

*(Read carefully the explanatory notes.)*

1. Name of corporation, firm, or individual.
2. Capital invested (both owned and borrowed).  
Value of plant (the value should be estimated at what the works would cost in 1890, if then to be erected, with such allowance for depreciation as may be suitable in the individual case):  
Land.  
Buildings.  
Machinery, tools, and implements.  
Total.  
Average annual allowance since June 1, 1880, for depreciation of buildings and machinery.
3. Amount paid for repairs, ordinary, of buildings and machinery during the year ending June 30, 1890.
4. Number of forge fires.
5. Number of hammers.
6. Total daily capacity, in tons of 2,000 pounds, of blooms.
7. Labor and wages:

**NOTE.**—Wages paid should include board or rent furnished as part compensation.

Classes.	Average number employed during the year.	Total amount paid in wages during the year.
Operatives, engineers, and other skilled workmen, overseers, and foremen or superintendents (not general superintendents or managers):		
Males above 16 years.....		
Females above 15 years.....		
Children.....		
Clerks or salesmen:		
Males above 16 years.....		
Females above 15 years.....		
Children.....		
Watchmen, laborers, teamsters, and other unskilled workmen:		
Males above 16 years.....		
Females above 15 years.....		
Children.....		
Total.....		

# 434 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## 7. Labor and wages—Continued.

Weekly rates of wages paid and average number of hands employed at each rate.

[The table of weekly rates in general schedule No. 3 (inquiry 6) is common to the table in this special schedule (inquiry 7) and is not here reproduced.]

Greatest number of hands employed at any time during the year.

Smallest number of hands employed at any time during the year.

## 8. Materials used (the ton referred to is the ton of 2,000 pounds):

NOTE.—Great care should be exercised in answering question 8, especially in the case of small works where no book accounts are kept. The cost of superintendence, rent, and other general expenses of the works are not to be included in materials.

Kinds.	Quantities.	Cost at the works using them, including freight charges.
Iron ore.....	tons	
Pig iron.....	tons	
Old or scrap iron.....	tons	
Anthracite coal.....	tons	
Bituminous coal.....	tons	
Coke.....	tons	
Charcoal.....	bushels	
All other materials.....		
Total cost of all materials.....		

## 9. Products (the ton referred to is the ton of 2,000 pounds):

NOTE.—Great care should be exercised in answering question 9, especially in the case of small works where no book accounts are kept. The value of the product means the price charged at the works, not including commissions or expenses of sales department.

Kinds.	Quantities.	Values.
Blooms made from ore.....	tons	
Blooms made from pig and scrap iron.....	tons	
[2 blank lines.]		
All other products, including amounts received for custom work and repairing.....		
Total value of all products.....		

[Inquiries numbered 9 and 10 in general schedule No. 3 are common to this special schedule (inquiries 10 and 11) and are not here reproduced.]

## 12. Power used in manufacture:

If steam power is used, state—

Number of boilers.

Number of engines.

Horsepower.

If water power is used, state—

Number of water wheels.

Horsepower.

Number of turbine wheels.

Horsepower.

## SPECIAL SCHEDULE NO. 19.—PRINTING, PUBLISHING, AND THE PERIODICAL PRESS.

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.  
Name of establishment; Street and No.

It is proposed to collect the statistics of newspapers, periodicals, and all printing and publishing establishments on one general schedule. Publishers of periodicals who do not do their own printing will so state, leaving all questions on the schedule

that relate to the purely mechanical department of publication to be answered by the printers on similar schedules submitted to the latter, thus avoiding duplication.

On the other hand, printers who do the mechanical work for one or more periodical publications will exclude from their returns answers to all questions relating to these periodicals that properly belong to the publishers to answer (including circulation, quantity of paper consumed, etc.). In all such cases the printer should furnish the publishers with a statement of the quantity of paper and ink used upon each particular publication, in order that it may be separately returned by the latter.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the establishment covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

*(Read carefully the explanatory notes.)*

1. Name of corporation, firm, or individual.

NOTE.—In the case of a publisher operating establishments located in different cities or towns a separate return should be made for each establishment.

2. Date when this establishment commenced operations.
3. Give details of the kinds of printing and publishing done by this establishment, to wit:

Book publication; job printing; newspaper and periodical publication; bookbinding; electrotyping.

If one or more newspapers or other periodicals are published by this establishment, state the name of each publication, and how often each is published.

If this establishment prints one or more periodicals published by others, state the name of the periodical and publication office in each case.

4. Capital invested (both owned and borrowed):  
Value of plant (the value should be estimated at what the printing office would cost in 1890, if then to be erected, with such allowance for depreciation as may be suitable in the individual case):

Land.

Buildings.

Machinery, type, and presses.

Total.

Live capital:

Printing paper and other stock on hand.

Work in process, and finished products on hand.

Cash on hand, bills receivable, unsettled ledger accounts, and sundries not included in any of the foregoing items.

Total.

Average annual allowance since June 1, 1880, for depreciation of buildings and machinery.

5. Miscellaneous items:  
Amount paid for rent, power, and heat.  
Amount paid for taxes.  
Amount paid for insurance.  
Amount paid for repairs, ordinary, of buildings and machinery.  
Amount paid for commissions and expenses of sales department.  
Amount paid for interest on cash used in the business.  
Amount paid for all sundries (not reported in any of the foregoing items).  
Total.

6. Labor and wages:

NOTE.—Wages paid should include board or rent furnished as part compensation.

Classes.	Average number employed during the year.	Total amount paid in wages during the year.
Engineers, pressmen, electrotypers, binders, compositors paid by the week, proof readers, foremen, and other skilled workmen employed on weekly wages:		
Males above 16 years.....		
Females above 15 years.....		
Children.....		
Officers or firm members (actively employed):		
Males.....		
Females.....		

# 436 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## 6. Labor and wages—Continued.

Classes.	Average number employed during the year.	Total amount paid in wages during the year.
Clerks, bookkeepers, etc.: Males above 16 years..... Females above 15 years..... Children.....		
Editors, subeditors, and reporters, not included in above: Males..... Females.....		
Watchmen, laborers, teamsters, and other unskilled workmen: Males above 16 years..... Females above 15 years..... Children.....		
Piecework (compositors): Males above 16 years..... Females above 15 years.....		
Total.....		

Weekly rates of wages paid and average number of hands employed at each rate (not including those employed on piecework).

[The table of weekly rates in general schedule No. 3 (Inquiry 6) is common to the table in this special schedule and is not here reproduced.]

Average weekly earnings of those employed on piecework.

## 7. Materials used:

NOTE.—The cost of superintendence, rent, and other general expenses of a printing office are not to be included in materials.

Kinds.	Quantities.	Cost at the office using them, including freight charges.
Paper used on daily.....	pounds	
Paper used on weekly.....	pounds	
Paper used on monthly.....	pounds	
Paper used on quarterly.....	pounds	
Paper used on job printing.....	pounds	
Paper used on book and pamphlet printing.....	pounds	
Ink.....	pounds	
Fuel.....		
Office supplies.....		
All other materials.....		
Total cost of all materials.....		

## 8. Value of products:

NOTE.—The value of the production is to be determined by the amount charged. Where it is impossible to separate the values of book and job printing, they may be returned as one item.

Kinds.	Values.
Newspapers and other periodicals:	
Amount charged for advertising.....	
Amount charged for subscriptions and sales.....	
Book and pamphlet publications(a).....	
Sheet music and books of music.....	
Job printing.....	
Bookbinding.....	
Blank books.....	
Electrotyping, engraving, etc.....	
All other products.....	
Total value of all products.....	

<sup>a</sup> Publishers of books and pamphlets will report under this head the price of their total product to resale dealers. Printers of books and pamphlets, not published for sale, will report the actual price of all such publications.

Lines numbered 9 to 11, inclusive, in general schedule No. 3 are common to this special and are not here reproduced.]

12. Daily newspapers (including weekly, semiweekly, and other papers published in connection with them):

State whether morning or evening, or both.

State whether a Sunday edition is published.

State if weekly, semiweekly, or triweekly papers are published also.

13. All other periodical publications:

State how often published.

State the general character and purpose of the publication.

NOTE.—Classification of publications: The following classification is suggested. Publishers of periodicals not included under either of these heads will indicate their character specifically under the head of "Miscellaneous."

- |                                                                   |                                                                                                          |
|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| a. News, politics, and family reading.                            | i. Law.                                                                                                  |
| b. Religious, with denominational relations, if any.              | j. Science and mechanics.                                                                                |
| c. Agricultural, horticultural, dairy, stock raising, etc.        | k. Freemasonry, Odd Fellowship, temperance organizations, etc., including the publications of societies. |
| d. Commerce, finance, insurance, railroads, etc.                  | l. Education and history, including the periodicals of educational and historical societies.             |
| e. Trade journals generally.                                      | m. Society, art, music, fashion, etc.                                                                    |
| f. General literature, including monthly and quarterly magazines. | n. College and school periodicals.                                                                       |
| g. Sunday newspapers.                                             | o. Miscellaneous.                                                                                        |
| h. Medicine and surgery.                                          |                                                                                                          |

14. Circulation of all periodicals (average per issue):

Of the daily; of the weekly; of the semiweekly; of the triweekly; of the monthly; of the quarterly.

15. State the aggregate number of copies printed and circulated during the census year:

Of the daily; of the weekly; of the semiweekly; of the triweekly; of the monthly; of the quarterly.

16. Average number of pounds of paper used for each edition:

Of the daily; of the weekly; of the semiweekly; of the triweekly; of the monthly; of the quarterly.

17. If published in a language other than English, state what language.

18. State whether the publishers do their own printing.

19. If not, state name and address of the printer.

20. If any colored persons have capital invested in this establishment, state how many and the amount of capital: No.; amount.

#### SPECIAL SCHEDULE NO. 20.—SHIPBUILDING: WOODEN VESSELS.

State; County; Post-office; S. D.; E. D. .... Special Agent or Enumerator.

Name of establishment; Street and No.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the establishment covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

(Read carefully the explanatory notes.)

[Inquiries numbered 1 and 2 in general schedule No. 3 are common to this special schedule and are not here reproduced.]

3. Classes of vessels built.

NOTE.—The classes of vessels built at this yard should be described here as specifically as possible, as: sail vessels, steam vessels, barges, or canal boats. A statement of kinds and quantities of materials used and the number and tonnage of vessels built and repaired should be set forth in detail in answers to questions 7 and 8, respectively.

[Inquiries numbered 4 to 6, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced; in inquiry 6 of this schedule, under the head of "classes," the word "draughtsmen" is added.]

## 438 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## 7. Materials used:

NOTE.—Great care should be exercised in answering question 7, especially in the case of small yards where no book accounts are kept. The cost of superintendence, rent, and other general expenses of the establishment are not to be included in materials. In reporting quantities of timber and lumber used specify carefully for each item whether the number of feet reported is cubic feet or board measure.

Kinds.	Quantities.	Cost at the yard using them, including freight charges.
New vessels (see also Repairing of vessels):		
White oak.....		
Other oak.....		
Hard pine.....		
White pine.....		
Fir.....		
Spruce.....		
Hackmatack.....		
Knees (specify kinds).....		
All other kinds of lumber.....		
Iron, bolts, spikes, rivets, straps, stanchions, girders, knees, yards, castings, etc.....		
Anchor and chains.....		
Steel, chords, arches, straps, girders, and knees.....		
Yellow metal, including bolts and spikes.....		
Masts and spars, not made in the yard.....		
Wire cordage.....		
Hemp cordage.....		
Manilla cordage.....		
Blocks.....	number	
Duck.....	yards	
Painting.....		
Machinery and boilers.....	pounds	
Oakum and pitch.....		
Fittings and furniture, not made in the yard.....		
Fuel (specify kinds).....		
All other materials.....		
Total cost of all materials used in building new vessels.....		
Repairing of vessels:		
White oak.....		
Other oak.....		
Hard pine.....		
White pine.....		
Fir.....		
Spruce.....		
Hackmatack.....		
Knees (specify kinds).....		
All other kinds of lumber.....		
Iron, bolts, spikes, rivets, straps, stanchions, girders, knees, yards, castings, etc.....		
Anchor and chains.....		
Steel, chords, arches, straps, girders, and knees.....		
Yellow metal, including bolts and spikes.....		
Masts and spars, not made in the yard.....		
Wire cordage.....		
Hemp cordage.....		
Manilla cordage.....		
Blocks.....	number	
Duck.....	yards	
Painting.....		
Machinery and boilers.....	pounds	
Oakum and pitch.....		
Fittings and furniture, not made in the yard.....		
All other materials.....		
Total cost of all materials used in repairing of vessels.....		

## 8. Vessels built and repaired:

NOTE.—Great care should be exercised in answering question 8, especially in the case of small yards where no book accounts are kept. The value of the product means the price charged at the yard, not including commissions or expenses of sales department.

Classes.	Number.	Tonnage.	Values.
New vessels:			
Sail vessels.....			
Steam vessels.....			
Barges.....			
Canal boats.....			
Total .....			
Classes.	Number.	Tonnage.	Value of repairs.
Repairing of vessels:			
Sail vessels.....			
Steam vessels.....			
Barges.....			
Canal boats.....			
Total .....			

[Inquiries numbered 9 to 11, inclusive, in general schedule No. 8 are common to this special schedule and are not here reproduced.]

## 12. From what source of supply, city or state, do you obtain the following materials:

White oak.  
Other oak.  
Hard pine.  
White pine.  
Hackmatack.  
Timber for masts and spars:  
Fir.  
Spruce.  
Iron.  
Steel.  
Forgings and castings.

## 13. What was the average cost of the following materials during the census year?

NOTE.—Give in each case the unit of measure or quantity on which answer is based.

White oak, per ; other oak, per ; hard pine, per ; white pine, per ; hackmatack, per ; fir, per ; spruce, per ; iron, per steel, per .

## 14. Do you build vessels on contract, or only on your own account?

## 15. Is the work on hulls done entirely by wage-workers in your employment?

If not, state what branches thereof are done by contract, and proportion of contract work to the total cost of work on hulls.

## 16. Do you build your own machinery and boilers?

## 17. How do you protect metal from the action of sea water?

## 18. In what trade are the vessels built by you principally engaged?

## 19. If any colored persons have capital invested in this establishment, state how many and the amount of capital: No.; amount.

## SPECIAL SCHEDULE No. 20a.—SHIPBUILDING: STEEL OR IRON VESSELS.

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.

Name of establishment; Street and No.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the establishment covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

(Read carefully the explanatory notes.)

[Inquiries numbered 1 and 2 in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 440 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## 3. Classes of vessels built.

NOTE.—The classes of vessels built at this yard should be described here as specifically as possible, as: sail vessels, steam vessels, barges, or canal boats. A statement of kinds and quantities of materials used and the number and tonnage of vessels built and repaired should be set forth in detail in answer to questions 7 and 8, respectively.

[Inquiries numbered 4 to 6, inclusive, in general schedule No. 3 are common to this special schedule, and are not here reproduced; in inquiry 6 of this schedule, under the head of "classes," the word "draughtsmen" is added.]

## 7. Materials used:

NOTE.—Great care should be exercised in answering question 7, especially in the case of small yards where no book accounts are kept. The cost of superintendence, rent, and other general expenses of the establishment are not to be included in materials. In reporting quantities of timber and lumber used specify carefully for each item whether the number of feet reported is cubic feet or board measure.

Kinds.	Quantities.	Cost at the yard using them, including freight charges.
<b>New vessels (see also repairing of vessels):</b>		
Rolled steel, plates, beams, angles, etc. ....	pounds	
Rolled iron, plates, beams, angles, etc. ....		
Forgings, iron or steel .....		
Rivets, iron or steel .....		
Iron castings .....		
Wire cordage .....		
Anchors and chains .....		
Machinery and boilers .....		
White oak .....		
Other oak .....		
Hard pine .....	number	
White pine .....		
Fir .....		
Spruce .....		
All other kinds of lumber .....		
Masts and spars, wood or metal, not made in the yard .....		
Manila cordage .....		
Hemp cordage .....		
Blocks .....		
Painting .....	yards	
Duck .....		
Oakum and pitch .....		
Fittings and furniture, not made in the yard .....		
Fuel (specify kinds): .....		
All other materials .....		
Total cost of all materials used in building new vessels .....		
<b>Repairing of vessels:</b>		
Rolled steel, plates, beams, angles, etc. ....	pounds	
Rolled iron, plates, beams, angles, etc. ....		
Forgings, iron or steel .....		
Rivets, iron or steel .....		
Iron castings .....		
Anchors and chains .....		
Wire cordage .....		
Machinery and boilers .....		
White oak .....		
Other oak .....		
Hard pine .....	number	
White pine .....		
Fir .....		
Spruce .....		
All other kinds of lumber .....		
Masts and spars, wood or metal, not made in the yard .....		
Hemp cordage .....		
Manila cordage .....		
Blocks .....		
Painting .....	yards	
Duck .....		
Oakum and pitch .....		
Fittings and furniture, not made in the yard .....		
All other materials .....		
Total cost of all materials used in repairing of vessels .....		

## 8. Vessels built and repaired:

NOTE.—Great care should be exercised in answering question 8, especially in the case of small yards where no book accounts are kept. The value of the product means the price charged at the yard, not including commissions or expenses of sales department.

Classes.	Number.	Tonnage.	Values.
New vessels:			
Sail vessels .....			
Steam vessels .....			
Barges .....			
Canal boats .....			
Total .....			
Classes.	Number.	Tonnage.	Value of repairs.
Repairing of vessels:			
Sail vessels .....			
Steam vessels .....			
Barges .....			
Canal boats .....			
Total .....			

[Inquiries numbered 9 to 11, inclusive, in general schedule No. 3 are common to this special schedule, and are not here reproduced.]

## 12. From what source of supply, city or state, do you obtain the following materials:

White oak.  
Other oak.  
Hard pine.  
White pine.  
Timber for masts and spars:  
Fir.  
Spruce.  
Iron.  
Steel.  
Steel plates and angles.  
Rolled iron.  
Forgings and pig iron.

## 13. What was the average cost of the following materials during the census year?

NOTE.—Give in each case the unit of measure or quantity on which answer is based.

White oak, per       ; other oak, per       ; hard pine, per       ; white pine, per       ;  
fir, per       ; spruce, per       ; iron, per       ; steel, per       ;  
plates and angles, per       ; rolled iron, per       ; forgings and pig iron, per       .

## 14. Do you build vessels on contract, or only on your own account?

## 15. Is the work on hulls done entirely by wage-workers in your employment?

If not, state what branches thereof are done by contract, and proportion of contract work to the total cost of work on hulls.

## 16. Do you build your own machinery and boilers?

## 17. How do you protect metal from the action of sea water?

## 18. In what trade are the vessels built by you principally engaged?

## 19. If any colored persons have capital invested in this establishment, state how many and the amount of capital: No; amount.

SPECIAL SCHEDULE NO. 20*b*.—SHIP BUILDING: BOATS, AND MASTS AND SPARS.

State; County; Post-office; S. D.; E. D.       , Special Agent or Enumerator.

Name of establishment; Street and No.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the establishment covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

# 442 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

(Read carefully the explanatory notes.)

[Inquiries numbered 1 and 2, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 3. Kinds of work done.

NOTE.—The kind of work done at this yard should be described here as specifically as possible: as ships' boats, fishing boats, pleasure boats, lifeboats, masts, spars, etc. A statement of kinds and quantities of materials used and number of boats, etc., built and repaired should be set forth in detail in answers to questions 7 and 8, respectively.

[Inquiries numbered 4 to 6, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced; in inquiry 6 of this schedule, under the head of "classes," the word "draughtsmen" is added.]

## 7. Materials used:

NOTE.—Great care should be exercised in answering question 7, especially in the case of small yards where no book accounts are kept. The cost of superintendence, rent, and other general expenses of the establishment are not to be included in materials. In reporting quantities of timber and lumber used specify carefully for each item whether the number of feet reported is cubic feet or board measure.

Kinds.	Quantities.	Cost at the yard using them, including freight charges.
Boats, and masts and spars built (see also repairing):		
Cedar .....		
Oak .....		
White pine .....		
Hard pine .....		
Fir .....		
Cypress .....		
Spruce .....		
Other lumber .....		
Iron, rivets and spikes .....		
Iron work, castings and wrought .....		
Machinery and boilers, for steam launches .....	pounds	
Yellow metal, including rivets and spikes .....		
Wire cordage .....		
Hemp cordage .....		
Manila cordage .....		
Painting .....		
Duck .....	yards	
Fuel (specify kinds) .....		
All other materials .....		
Total cost of all materials used in new construction .....		
Kinds.	Quantities.	Cost at the yard using them, including freight charges.
Repairing of boats, and masts and spars:		
Cedar .....		
Oak .....		
White pine .....		
Hard pine .....		
Fir .....		
Cypress .....		
Spruce .....		
Other lumber .....		
Iron, rivets and spikes .....		
Yellow metal, including rivets and spikes .....		
Iron work, castings and wrought .....		
Machinery and boilers, for steam launches .....	pounds	
Wire cordage .....		
Hemp cordage .....		
Manila cordage .....		
Painting .....		
Duck .....	yards	
All other materials .....		
Total cost of all materials used in repairs .....		

## 8. Boats, and masts and spars built and repaired:

NOTE.—Great care should be exercised in answering question 8, especially in the case of small yards where no book accounts are kept. The value of the product means the price charged at the yard, not including commissions or expenses of sales department.

Classes.	Number.	Tonnage.	Values.
Boats, and masts and spars built:			
Ships' boats .....			
Fishing boats .....			
Pleasure boats .....			
Lifeboats .....			
Masts and spars (numbered) .....			
Total .....			
Repairing of boats, and masts and spars:			
Ships' boats .....			
Fishing boats .....			
Pleasure boats .....			
Lifeboats .....			
Masts and spars (numbered) .....			
Total .....			

[Inquiries numbered 9 to 11, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 12. From what source of supply, city or state, do you obtain the following materials?

Oak.  
White pine.  
Hard pine.  
Spruce.  
Cedar.  
Cypress.  
Timber for masts and spars.  
Iron.  
Steel.

## 13. What was the average cost of the following materials during the census year?

NOTE.—Give in each case the unit of measure or quantity on which answer is based.

Oak, per ; white pine, per ; hard pine, per ; cedar, per ;  
spruce, per ; cypress, per ; fir, per ; iron, per ; steel,  
per .

## 14. Do you build on contract or only on your own account?

## 15. Do you build your own machinery and boilers for steam launches?

## 16. How do you protect metal from the action of sea water?

## 17. In what trade are the boats built by you principally engaged?

## 18. If any colored persons have capital invested in this establishment, state how many and the amount of capital: No.; amount.

## SPECIAL SCHEDULE No. 21.—SILK AND SILK GOODS.

State; County; Post-office; S. D.; E. D. . . . ., Special Agent or Enumerator.

Name of establishment; Street and No.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the establishment covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

(Read carefully the explanatory notes.)

## 1. Name of corporation, firm, or individual:

NOTE.—In the case of a manufacturer operating establishments located in different cities or towns a separate return should be made for each establishment.

# 444 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## 2. Year in which this establishment commenced operations.

(a) By whom was the mill operated in 1880? (b) State the increased productive capacity of this mill, if any, since 1880.

## 3. Kinds of goods manufactured.

[Inquiries numbered 4 to 6, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced; in inquiry 6 of this schedule, under the head of "classes," the words "designers" and "card cutters" are added.]

## 7. Materials used:

NOTE.—The cost of superintendence, rent, and other general expenses of a manufacturing establishment are not to be included in materials.

Kinds.	Quantities.	Cost at the factory using them, including freight charges.
Raw silk .....	pounds	
Waste silk .....	pounds	
Organzine and tram bought outside and used in manufacture.....	pounds	
Organzine and tram thrown by others for this mill and used in manufacture.....	pounds	
Fringe silk, bought outside and used in manufacture.....	pounds	
Floss silk, bought outside and used in manufacture.....	pounds	
Machine twist and sewing silk, bought outside and used in manufacture.....	pounds	
Spun-silk yarn purchased.....	pounds	
Cotton yarn.....	pounds	
Woolen yarn.....	pounds	
Worsted yarn.....	pounds	
Jute yarn.....	pounds	
Linen yarn.....	pounds	
Oil.....	gallons	
Soap.....	pounds	
Chemicals and dye-stuffs.....		
Fuel (specify kinds).....		
All other materials.....		
[10 blank lines.]		
Total cost of all materials.....		

## 8. Goods manufactured:

NOTE.—The value of the products means the price charged at the factory, not including commissions or expenses of sales department. Estimate value of finished products unsold at their present selling value.

Kinds.	Quantities.	Values.
Organzine made and not used in this mill.....	pounds	
Tram made and not used in this mill.....	pounds	
Spun-silk yarn made and not used in this mill.....	pounds	
Machine twist and sewing silk.....	pounds	
Fringe, knitting, embroidery, and floss silk.....	pounds	
Dress goods, figured and plain.....	yards	
Tailors' linings.....	yards	
Tie silks and scarfs.....	yards	
Other broad goods.....	yards	
Upholstery goods:		
Tapestries.....	sq. yards	
Curtains.....	pairs	
Velvets and plushes.....	sq. yards	
Other upholstery broad goods.....	sq. yards	
Gimps and trimmings.....	pieces	
Handkerchiefs.....	dozens	
Ribbons.....	pieces	
Laces.....	pieces	
Braids and bindings.....	pieces	
Dress and cloak trimmings.....	pieces	
Military trimmings.....	pieces	
Hosiery and knit goods:		
Shirts and drawers.....	dozens	
Hosiery.....	dozens	
Mittens, gloves, etc.....	dozens	
Jersey cloth.....	yards	
Miscellaneous products not above enumerated:		
[6 blank lines.]		
Total value of all products.....		

[Inquiries numbered 9 to 11, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

12. Number of hand looms:  
For broad goods; for narrow goods.
13. Number of power looms:  
For broad goods; for ribbons; for other narrow goods.
14. Number of Jacquard machines.
15. Number of knitting machines.
16. Number of lace machines.
17. Number of sewing machines.
18. Number of spindles:  
Winding, cleaning, and doubling; spinning and twisting; braiding.
19. Average weekly wages, per operative:

	Males above 16 years.	Females above 15 years.	Children.
Raw-silk winder .....			
Raw-silk cleaner .....			
Raw-silk doubler .....			
Raw-silk spinner .....			
Raw-silk twister .....			
Soft-silk winder .....			
Soft-silk spooler .....			
Soft-silk warper .....			
Soft-silk beamer .....			
Soft-silk warp twister .....			
Hand-loom weaver .....			
Power-loom weaver:			
Broad goods .....			
Ribbons .....			
Braiding-machine operative .....			
Knitting-machine operative .....			
Lace-machine operative .....			
Designer .....			
Card-cutter .....			
Dyer .....			
Finisher .....			
Laborer .....			
Other operatives: [10 blank lines.]			

## SPECIAL SCHEDULE No. 22.—WOOL MANUFACTURES.

(Except hosiery and knit goods.)

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.  
Name of establishment; Street and No.

It has been determined to collect the statistics of all branches of woolen manufacture (except hosiery and knit goods) upon one comprehensive schedule. The statistics of the several branches of the manufacture will be separately tabulated and published. Manufacturers will easily distinguish the questions on this schedule which apply to their special branch of the industry.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the establishment covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

(Read carefully the explanatory notes.)

1. Name of corporation, firm, or individual.

NOTE.—In the case of a manufacturer operating establishments located in different cities or towns a separate return should be made for each establishment.

2. Year in which this establishment commenced operations.

(a) By whom was this mill operated in 1880? (b) State the increased productive capacity, if any, of this mill since 1880, in cards, combs, or looms.

3. Kinds of goods manufactured.

(a) Do you dye your own goods?

(b) Do you finish your own goods?

(c) Do you dye or finish goods for others?

[Inquiries numbered 4 and 5 in general schedule No. 3 are common to this special schedule and are not here reproduced.]

# 446 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## 6. Labor and wages:

NOTE.—Mill operatives employed in spinning or weaving are to be returned in this table at (a) as though employed by the day. Other hands, if any, employed on piecework should be specially returned at (e). Wages paid should include board or rent furnished as part compensation.

Classes.	Average number employed during the year.	Total amount paid in wages during the year.
(a) Operatives, designers, engineers, and other skilled workmen, overseers, and foremen or superintendents (not general superintendents or managers):		
Males above 16 years.....		
Females above 15 years.....		
Children.....		
(b) Officers or firm members:		
Males.....		
Females.....		
(c) Clerks or salesmen:		
Males above 16 years.....		
Females above 15 years.....		
Children.....		
(d) Watchmen, laborers, teamsters, and other unskilled workmen:		
Males above 16 years.....		
Females above 15 years.....		
Children.....		
(e) Piecework (not included in the foregoing statement, see note above):		
Males above 16 years.....		
Females above 15 years.....		
Children.....		
Total.....		

Weekly rates of wages paid and average number of hands employed at each rate (not including those employed on piecework, other than spinning or weaving).

[The table of weekly rates in general schedule No. 3 (Inquiry 6) is common to the table in this special schedule and is not here reproduced.]

## 7. Materials used:

NOTE.—The cost of superintendence, rent, and other general expenses of a manufacturing establishment are not to be included in materials.

Kinds.	Quantities.	Cost at the factory using them, including freight charges.
Foreign wool (in condition purchased).....	pounds	
Domestic wool (in condition purchased).....	pounds	
Total quantity of foreign and domestic wool, in scoured pounds, as prepared for cards (not including waste, nolls, or shoddy purchased).....	pounds	
Shoddy.....	pounds	
Waste and wool nolls.....	pounds	
Camels' hair and nolls.....	pounds	
Mohair and nolls.....	pounds	
Hair of buffalo, cow, and other animals.....	pounds	
Cotton purchased.....	bales; pounds	
Cotton yarn made in mill for woolen goods.....	pounds	
Cotton yarn made in mill for worsted goods.....	pounds	
NOTE.—The foregoing items are for spinners and manufacturers who spin their own yarns.		
Woolen yarn, not made in mill.....	pounds	
Worsted yarn, not made in mill.....	pounds	
Cotton yarn, not made in mill.....	pounds	
Mohair yarn, not made in mill.....	pounds	
Silk yarn, not made in mill.....	pounds	
Spun-silk yarn, not made in mill.....	pounds	
Jute yarn, not made in mill.....	pounds	
Linen yarn, not made in mill.....	pounds	
Oil.....	gallons	
Soap.....	pounds	
Chemicals and dyestuffs.....		
Fuel (specify kinds).....		
All other materials.....		
Total cost of all materials.....		

## 8. Goods manufactured:

NOTE.—Follow the classification at the end of this schedule in describing goods manufactured. The value of the products means the price charged at the factory, not including commissions or expenses of sales department. Estimate value of finished products unsold at their present selling value.

Kinds.	Quantities.	Values.
(a)	(a)	(a)
All other products (specify kinds): [7 blank lines.]		
Total value of all products.....		

a Several blank lines are printed in schedule.

[Inquiries numbered 9 to 11, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

12. Number of sets of woolen cards; width of same.  
 Number of cylinders to each set of cards.  
 Average size of yarn produced (runs).  
 Daily average consumption of each set of cards in clean stock during the past year, reckoned on full time (pounds).
13. Number of combing machines of foreign manufacture.  
 Daily average consumption of each machine in scoured wool, reckoned on full time (pounds).  
 Average size of yarn produced (numbers).
14. Number of combing machines of American manufacture:  
 Daily average consumption of each machine in scoured wool, reckoned on full time (pounds).  
 Average size of yarn produced (numbers).
15. Number of woolen spindles.
16. Number of worsted spindles.
17. Number of cotton spindles, omitting twisting and doubling spindles.
18. Number of broad looms (50 inches or over, reed space) on woolen goods.  
 Number of broad looms on worsted goods.
19. Number of narrow looms (under 50 inches, reed space) on woolen goods.  
 Number of narrow looms on worsted goods.
20. Number of hand looms.
21. Carpet and rug machinery:  
 Number of ingrain hand looms.  
 Number of ingrain power looms.  
 Number of broad ingrain power looms.  
 Number of broad ingrain hand looms.  
 Number of Venetian hand looms.  
 Number of Venetian power looms.  
 Number of tapestry Brussels power looms.  
 Number of tapestry velvet power looms.  
 Number of body Brussels power looms.  
 Number of Wilton power looms.  
 Number of Axminster power looms.  
 Number of Moquette power looms.  
 Number of Wilton rug power looms.  
 Number of tapestry rug power looms.  
 Number of Smyrna rug power looms.  
 Number of Smyrna rug hand looms.

## CLASSIFIED PRODUCTS OF THE WOOLEN MANUFACTURE.

NOTE.—Manufacturers are requested to follow the classification of products in filling out this schedule, in order that the census office may make its tabulations in accordance therewith. Each manufacturer will readily determine under which class or classes the goods manufactured by him are properly grouped.

Attention is particularly directed to the fact that only such products as are intended for sale are to be returned; i. e., the finished products of the mill. All such products, whether rolls, yarns, noils, waste, wool extract, hat bodies, hats, knitted, felted, or woven goods, should be separately returned, by quantity and value, under one or more of the several specifications given.

In case the product, or any portion of it, is not properly included in any of these classes, it should be accurately described under the head "All other products."

Return all fabrics reduced to *square yards*, except where running yards are indicated in the classification.

CLASS A.—*All wool or all worsted woven goods.*

It is not intended to include under this classification goods containing any admixture of cotton or other vegetable fiber, except such as may be used for selvages, headings, or threads introduced to bring up a pattern or design. (See classes B and C.)

1. Wool cloths, doeskins, cassimeres, chevots, indigo flannels, and broadcloths, for men's wear: Sq. yds.; value.
2. Overcoatings, cloakings, and kerseys, for both men and women's wear: Sq. yds.; value.
3. Carriage cloths of all weights: Sq. yds.; value.
4. Worsted coatings, serges, and suitings, for men's wear: Sq. yds.; value.
5. Wool dress goods, sackings, tricots, ladies' cloth, broadcloth, and other all-wool goods, for women's wear: Sq. yds.; value.
6. Worsted dress goods, cashmeres, serges, and other worsted goods, for women's wear: Sq. yds.; value.
7. Flannels: Sq. yds.; value.
8. Blankets: Sq. yds.; value.
9. Horse blankets: Sq. yds.; value.
10. Carriage robes: Sq. yds.; value.
11. Woven shawls of wool or worsted: Sq. yds.; value.
12. Buntings: Sq. yds.; value.

CLASS B.—*Union or cotton-mixed woven goods.*

It is not intended to include under this classification goods made wholly or principally upon warp threads composed of cotton or other vegetable fiber. (See Class C.)

1. Unions, tweeds, chevots, cassimeres, or other goods for men's wear: Sq. yds.; value.
2. Overcoatings and cloakings: Sq. yds.; value.
3. Sackings, tricots, and dress goods; or women's wear: Sq. yds.; value.
4. Flannels and linseys: Sq. yds.; value.
5. Blankets: Sq. yds.; value.
6. Horse blankets: Sq. yds.; value.

CLASS C.—*Goods woven on cotton warps, with weft partly or wholly of wool, worsted, or hair.*

[Or cotton weft on worsted warp.]

1. Cassimeres, doeskins, jeans, coatings, suitings, and other cotton warp goods, for men's wear, not specified below: Sq. yds.; value.
2. Overcoating and cloakings: Sq. yds.; value.
3. Satinets: Sq. yds.; value.
4. Worsted-filling dress goods, delaines, cashmeres, serges, mohairs, alpacas, and other stuffs, for women's wear: Sq. yds.; value.
5. Wool-filling dress goods and repellents: Sq. yds.; value.
6. Domett flannels and shirtings: Sq. yds.; value.
7. Cotton-warp blankets: Sq. yds.; value.
8. Linings, Italian cloths, and lastings: Sq. yds.; value.

CLASS D.—*Upholstery goods and sundries.*

1. Woolen upholstery goods, tapestry, terry, rep, and damask: Sq. yds.; value.
2. Worsted or mohair upholstery goods, tapestry, plush, terry, and rep: Sq. yds.; value.
3. Braids and braiding: Running yds.; value.
4. Picture cord: Running yds.; value.
5. Webbing, gorings, elastic fabrics, bindings, galloons, fringes, and other sundries: Running yds.; value.

CLASS E.—*Carpets and rugs.*

1. Ingrain, 2-ply: Sq. yds.; value.
2. Ingrain, 3-ply: Sq. yds.; value.

3. Ingrain art carpets: Sq. yds.; value.
4. Tapestry Brussels: Running yds.; value.
5. Body Brussels: Running yds.; value.
6. Tapestry velvet: Running yds.; value.
7. Wilton or Wilton velvet: Running yds.; value.
8. Axminster: Running yds.; value.
9. Moquette: Running yds.; value.
10. Tapestry rugs: No.; value.
11. Wilton rugs: No.; value.
12. Moquette rugs: No.; value.
13. Ingrain rugs: No.; value.
14. Smyrna rugs: No.; value.
15. Smyrna carpets: No.; square yds.; value.
16. Other woolen rugs: No.; value.

CLASS F.—*Felt goods.*

1. Felt cloths: Sq. yds.; value.
2. Trimming and lining felts: Sq. yds.; value.
3. Felt skirts and skirting: Sq. yds.; value.
4. Table and piano covers: Sq. yds.; value.
5. Felt for ladies' hats: Sq. yds.; value.
6. Saddle felts: Sq. yds.; value.
7. Rubber shoe linings: Sq. yds.; value.
8. Endless belts: Sq. yds.; lbs.; value.
9. Druggets: Sq. yds.; value.
10. Hair felting: Sq. yds.; value.

CLASS G.—*Wool hats.*

Wool hats: Dozens; value.

NOTE.—The fur-hat industry to be reported on general schedule No. 3.

CLASS H.—*Partly manufactured products for sale.*

1. Woolen yarn, all wool: Pounds; value.
2. Woolen yarn, union or merino: Pounds; value.
3. Worsted yarn: Pounds; value.
4. Cotton yarn: Pounds; value.
5. Woolen card rolls: Pounds; value.
6. Worsted slubbing and tops: Pounds; value.
7. Worsted noils: Pounds; value.
8. Waste: Pounds; value.
9. Shoddy and mungo: Pounds; value.
10. Wool extract: Pounds; value.

CLASS I.—*All manufactures of wool and worsted, or of wool or worsted combined with cotton, silk, or other fibers, not included in Classes A, B, C, D, or E.*

CLASS K.—*Hosiery and knit goods* (to be returned upon special schedule No. 23).

SPECIAL SCHEDULE NO. 23.—HOSIERY AND KNIT GOODS.

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.  
Name of establishment; Street and No.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the establishment covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

(Read carefully the explanatory notes.)

1. Name of corporation, firm, or individual.

NOTE.—In the case of a manufacturer operating establishments located in different cities or towns a separate return should be made for each establishment.

2. Year in which this establishment commenced operations.

(a) By whom was this mill operated in 1880? (b) State the increased productive capacity of this mill, if any, since 1880, in cards or knitting machines.

3. Kinds of goods manufactured.

## 450 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

[Inquiries numbered 4 and 5 in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 6. Labor and wages:

NOTE.—Mill operatives employed in spinning are to be returned in this table at (a) as though employed by the day. Other hands, if any, employed on piecework should be separately returned at (e). Wages paid should include board or rent furnished as part of compensation.

Classes.	Average number employed during the year.	Total amount paid in wages during the year.
(a) Operatives, engineers, and other skilled workmen, overseers, and foremen or superintendents (not general superintendents or managers):		
Males above 16 years .....		
Females above 15 years .....		
Children .....		
(b) Officers or firm members:		
Males .....		
Females .....		
(c) Clerks or salesmen:		
Males above 16 years .....		
Females above 15 years .....		
Children .....		
(d) Watchmen, laborers, teamsters, and other unskilled workmen:		
Males above 16 years .....		
Females above 15 years .....		
Children .....		
(e) Piecework (not included in the foregoing statement, see note above):		
Males above 16 years .....		
Females above 15 years .....		
Children .....		
Total .....		

Weekly rates of wages paid and average number of hands employed at each rate (not including those employed on piecework other than spinning).

[The table of weekly rates in general schedule No. 3 (inquiry 6) is common to the table in this special schedule and is not here reproduced.]

## 7. Materials used:

NOTE.—The cost of superintendence, rent, and other general expenses of a manufacturing establishment are not to be included in materials.

Kinds.	Quantities.	Cost at the factory using them, including freight charges.
Foreign wool, in condition purchased, consumed during the year.	pounds	
Domestic wool, in condition purchased, consumed during the year.	pounds	
Total quantity of foreign and domestic wool, in scoured pounds, as prepared for cards (not including waste, noils, or shoddy purchased) .....	pounds	
Shoddy .....	pounds	
Waste and wool noils .....	pounds	
Camel's hair and noils .....	pounds	
Mohair and noils .....	pounds	
Hair of other animals .....	pounds	
Cotton purchased .....	bales; pounds	
NOTE.—The foregoing questions are for spinners and manufacturers of hosiery and knit goods who spin their own yarns.		
Woolen yarn used, <i>not made in mill</i> .....	pounds	
Worsted yarn used, <i>not made in mill</i> .....	pounds	
Cotton yarn used, <i>not made in mill</i> .....	pounds	
Linen yarn used, <i>not made in mill</i> .....	pounds	
Silk yarn used, <i>not made in mill</i> .....	pounds	
Spun-silk yarn used, <i>not made in mill</i> .....	pounds	
Chemicals and dyestuffs .....	pounds	
Soap .....	pounds	
Oil .....	pounds	
Fuel (specify kinds) .....		
All other materials .....		
Total cost of all materials .....		

## 8. Goods manufactured:

NOTE.—The value of the product means the price charged at the factory, not including commissions and expenses of sales department. Manufacturers are requested to follow this classification in order to insure uniformity of tabulations in the census reports. Estimate value of finished products unsold at their present selling value.

Kinds.	Quantities.	Values.
Woolen half-hose .....	dozens	
Woolen hose .....	dozens	
Merino or mixed half-hose .....	dozens	
Merino or mixed hose .....	dozens	
Cotton half-hose .....	dozens	
Cotton hose .....	dozens	
Shirts and drawers:		
Merino or mixed .....	dozens	
All wool .....	dozens	
All cotton .....	dozens	
Leggins and gaiters .....	dozens	
Gloves and mittens .....	dozens	
Hoods, scarfs, nubbies, etc. ....	dozens	
Cardigan jackets, fancy jackets, etc. ....	dozens	
Shawls .....	dozens	
Fancy-knit goods, wristers, etc. ....	dozens	
Boot and shoe linings .....	yards	
Jersey cloth .....	yards	
Woolen yarn .....	pounds	
Worsted yarn .....	pounds	
All other products, naming them, with quantities and values in each case:		
[8 blank lines.]		
Total value of all products .....		

[Inquiries numbered 9 to 11, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 12. Number of sets of woolen cards; width of same.

Number of cylinders to each set of cards.

Average size of yarn produced (runs).

Average daily consumption of each set of cards, in clean stock, during the past year, reckoned on full time (pounds).

## 13. Number of combing machines of foreign manufacture.

Daily average consumption in scoured wool, reckoned on full time (pounds).

## 14. Number of combing machines of American manufacture.

Daily average consumption of each machine in scoured wool, reckoned on full time (pounds).

## 15. Number of woolen spindles.

## 16. Number of worsted spindles.

## 17. Number of cotton spindles (omitting twisting and doubling spindles).

## 18. Number of knitting machines.

## 19. Number of sewing machines.

## SPECIAL SCHEDULE No. 24.—CARRIAGES AND WAGONS.

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.

Name of establishment; Street and No.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the establishment covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

(Read carefully the explanatory notes.)

[Inquiries numbered 1 and 2 in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 3. Kinds of vehicles built.

NOTE.—The character of the principal product should be described here as specifically as possible. A statement of kinds and quantities of material used and vehicles built should be set forth in detail in answers to questions 7 and 8, respectively.

[Inquiries numbered 4 to 6, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 452 HISTORY AND GROWTH OF THE UNITED STATES CENSUS

## 7. Materials used:

NOTE.—Great care should be exercised in answering question 7, especially in the case of small establishments where no book accounts are kept. The cost of superintendence, rent, and other general expenses of the establishment are not to be included in materials.

Kinds.	Quantities.	Cost at the factory using them, including freight charges.
Lumber.....		
Iron and steel.....		
Carriage hardware.....		
Paints, oils, and turpentine.....		
Varnish.....		
Leather.....		
Carriage cloths.....		
Rubber and enameled cloths.....		
Lamps and mountings.....		
Wheels.....	number	
Axles.....	number	
Springs.....	number	
Carriage bodies.....	number	
Wagon bodies.....	number	
Fuel (specify kinds).....		
All other materials.....		
Total cost of all materials.....		

## 8. Vehicles built:

NOTE.—Great care should be exercised in answering question 8, especially in the case of small establishments where no book accounts are kept. The value of the product means the price charged at the shop or factory, not including commissions or expenses of sales department.

Kinds.	Quantities.	Values.
Road carts, including skeleton carts and all carts costing under \$25.....	number	
All other carts, including so-called 2-wheelers, dogcarts, physicians' gigs, and all carts costing \$25 or more.....	number	
Buggies and phaetons (to carry 2 people):		
(a) Costing under \$100.....	number	
(b) Costing \$100 and upward.....	number	
Light carriages (to carry 4 people, and hung on perch carriage part, with standing or falling tops, canopy tops, extension tops, etc.).....	number	
Same as last, without tops.....	number	
Landaus.....	number	
Broughams.....	number	
Victorias and cabriolets.....	number	
Coaches.....	number	
All other heavy carriages hung on platform springs.....	number	
Public conveyances, as omnibuses, wagonettes, stage coaches, hearses, etc.....	number	
Light spring wagons (2 and 4 wheeled), for the delivery of light merchandise.....	number	
Transfer wagons, with or without springs, as trucks, drays, and heavy express wagons.....	number	
Farm wagons.....	number	
Dirt carts.....	number	
Sleighs:		
(a) Costing under \$25.....	number	
(b) Costing \$25 and upward.....	number	
Wheels made.....	number	
Axles made.....	number	
Springs made.....	number	
Carriage bodies made.....	number	
Wagon bodies made.....	number	
All other products, including amounts received for custom work and repairing.....		
Total value of all products.....		

[Inquiries numbered 9 to 12, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

**SPECIAL SCHEDULE No. 25.—SALT WORKS.**

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.  
Name of establishment; Street and No.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the establishment covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

(Read carefully the explanatory notes.)

[Inquiries numbered 1 and 2 in general schedule No. 3 are common to this special schedule and are not here reproduced.]

### 3. Location and characteristics of wells or mines:

**Location of wells or mines:**

City, district, or region.

County; state.

Number of wells or mines.

Depths of wells, in feet, for each well.

Strength of brine for each well. (State whether Beaumé degrees or salinometer degrees.)

Rock salt, mined as such:

(a) Number of beds.

(b) Depth below surface (feet).

(c) Area of beds (acres).

(d) Thickness of beds (feet).

[Inquiries numbered 4 to 6, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 7. Materials used:

NOTE.—Great care should be exercised in answering question 7, especially in the case of small establishments where no book accounts are kept. The cost of superintendence, rent, and other general expenses of a manufacturing establishment are not to be included in materials. When giving tons, in second column, state whether of 2,000 or of 2,240 pounds.

Kinds.	Quantities.	Cost at the works using them, including freight charges.
(a)	(a)	(a)
Fuel (specify kinds) .....		
All other materials .....		
Total cost of all materials.....		

**a Several blank lines are printed in schedule.**

**8. Salt produced:**

NOTE 1.—Great care should be exercised in answering question 8, especially in the case of small establishments where no book accounts are kept. The value of the product means the price charged at the works, not including commissions or expenses of sales department.

NOTE 2.—When giving tons, in second column, state whether of 2,000 or of 2,240 pounds.

Kinds.	Quantities.	Values.
<b>Rock salt:</b>		
Average capacity of plant in 24 hours.....		
Salt inspected during the year (specify grades, and whether barrels or bushels):		
[3 blank lines.]		
Total.....		
<b>Salt manufactured during the year (specify grades, and whether barrels or bushels):</b>		
[3 blank lines.]		
Total.....		

## 454 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## 8. Salt produced—Continued.

Kinds.	Quantities.	Values.
Solar salt:		
Covers .....	number	
Area of covers .....	square feet	
Salt inspected during the year (specify grades, and whether barrels or bushels):		
[3 blank lines.]		
Total .....		
Salt manufactured during the year (specify grades, and whether barrels or bushels):		
[3 blank lines.]		
Total .....		
Salt made by boiling process:		
Specify by what process, whether by kettles, boilers, pans, grainers, jacketed kettles, or vacuum pans.		
Blocks .....	number	
Kettles, boilers, pans, grainers, jacketed kettles, or vacuum pans .....	number	
Average capacity of plant in 24 hours .....		
Salt inspected during the year (specify grades, and whether barrels or bushels):		
[3 blank lines.]		
Total .....		
Salt manufactured during the year (specify grades, and whether barrels or bushels):		
[3 blank lines.]		
Total .....		
All other products .....		
Total value of all products .....		

[Inquiries numbered 9 to 11, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

12. Analyses of the brines, or of the rock salt, also of the various grades of salt produced.

13. If any colored persons have capital invested in this establishment, state how many and the amount of capital: No.; amount.

## SPECIAL SCHEDULE No. 26.—LEATHER, PATENT, ENAMELED, AND MOROCCO.

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.

Name of establishment; Street and No.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the establishment covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

(Read carefully the explanatory notes.)

[Inquiries numbered 1 and 2 in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 3. Kinds of goods manufactured.

NOTE.—The character of the principal product should be described here as specifically as possible. A statement of kinds and quantities of materials used and goods manufactured should be set forth in detail in answers to questions 7 and 8, respectively.

[Inquiries numbered 4 to 6, inclusive, in general schedule No. 3 are common to this special schedule (except that in inquiry 4, under "live capital" the lines "all other items of capital invested or employed" and "total capital employed" are added, and in inquiry 5 the line "amount paid for rent, power, and heat" is divided thus: "Amount paid for rent of power," "amount paid for rent of heat," "amount paid for rent of real estate") and are not here reproduced.]

## 7. Materials used:

NOTE.—Great care should be exercised in answering question 7, especially in the case of small establishments where no book accounts are kept. The cost of superintendence, rent, and other general expenses of the establishment are not to be included in materials.

## 7. Materials used—Continued.

Kinds.	Quantities.	Cost at the factory using them, including freight charges.
Hemlock bark.....	cords	
Oak bark.....	cords	
Gambier.....	bales	
Hemlock bark extract.....	barrels	
Oak bark extract.....	barrels	
Sumac.....	tons	
All other tanning materials.....		
Hides tanned for patent and enameled leather.....	number	
Hides tanned for all other purposes.....	number	
Calf and kip skins tanned.....	number	
Goatskins tanned.....	number	
Sheepskins tanned.....	number	
Fuel (specify kinds).....		
All other materials.....		
Total cost of all materials.....		

## 8. Goods manufactured:

NOTE.—Great care should be exercised in answering question 8, especially in the case of small establishments where no book accounts are kept. The value of the product means the price charged at the factory, not including commissions or expenses of sales department.

Kinds.	Quantities.	Values.
Black enameled leather.....	pounds	
Black japanned grain leather.....	pounds	
Colored enameled leather (morocco finish).....	pounds	
Black and colored splits.....	pounds	
All other products.....		
Total value of all products.....		

[Inquiries numbered 9 to 11, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

12. From what source do you obtain hemlock bark?

13. From what source do you obtain oak bark?

14. If any colored persons have capital invested in this establishment, state how many and the amount of capital: No.; amount.

## SPECIAL SCHEDULE No. 27.—PETROLEUM REFINING.

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.

Name of establishment; Street and No.

The period to be covered by this return is the year beginning January 1, 1889, and ending December 31, 1889. If, however, the fiscal year of the establishment covers a different period, the return may be for the fiscal year which most nearly conforms to the year above noted.

(Read carefully the explanatory notes.)

[Inquiries numbered 1 and 2 in general schedule No. 3 are common to this special schedule and are not here reproduced.]

3. Name of the refinery, if any.

[Inquiries numbered 4 to 6, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

456 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

7. Materials used:

NOTE.—The cost of superintendence, rent, and other general expenses of a manufacturing establishment are not to be included in materials.

Kinds.	Quantities.	Cost at the refinery using them, including freight charges.
Crude petroleum:		
Crude petroleum received from transportation companies....	gallons	
Crude petroleum received from wells .....	gallons	
Crude petroleum received from all other sources.....	gallons	
Fuel:		
Coal, anthracite .....	tons	
Coal, bituminous .....	tons	
Coke .....	bushels	
Natural gas.....	1,000 cubic feet	
Naphtha .....	barrels	
Residuum (not produced at works) .....	barrels	
Wood .....	cords	
Acids:		
Sulphuric acid.....	tons	
Hydrochloric acid .....	pounds	
Sulphur.....	tons	
All other acids .....		
Coopers' and carpenters' materials:		
Staves.....	pieces	
Headings.....	sets	
Lumber.....	feet, board measure	
Iron hoops .....	pounds	
Glue, paint, bungs, and other sundries .....		
Tinners' materials:		
Tin .....	boxes	
Solder.....	pounds	
Acids, rosin, caps, and other sundries.....		
Packages bought:		
Barrels.....	number	
Tin cans .....	number	
Cases.....	number	
All other materials .....		
Total cost of all materials .....		

8. Goods manufactured and disposition of same:

NOTE.—The value of the products means the price charged at the works, not including commissions or expenses of sales department. Estimate value of finished products unsold at their present selling value.

BURNING OILS.

Fire test.	Inland (barrels).	Export (barrels).	Total (barrels).	Value.
100° .....				
110° .....				
112° .....				
115° .....				
120° .....				
110° to 120° .....				
130° .....				
135° .....				
140° .....				
150° .....				
120° to 150° .....				
155° .....				
160° .....				
175° .....				
150° to 175° .....				
175° to 260° .....				
285° .....				
300° .....				
Total.....				

## 8. Goods manufactured and disposition of same—Continued.

## RESIDUUM.

Specific gravity.	Inland (barrels).	Export (barrels).	Total (barrels).	Value.

## PARAFFINE OILS.

Color and specific gravity (Baumé).	Inland (barrels).	Export (barrels).	Total (barrels).	Value.
Yellow, 20° .....				
Yellow, 23° to 24° .....				
Yellow, 25° .....				
Yellow, 26° to 31° .....				
Red, 20° to 22° .....				
Red, 22½° to 24° .....				
Total .....				

## REDUCED OILS.

Color and specific gravity (Baumé).	Inland (barrels).	Export (barrels).	Total (barrels).	Value.
Black summer .....				
Black summer, 25° to 30°, c. t. ....				
Black summer, 15°, c. t. ....				
Black summer, zero .....				
Cylinder, steam refined .....				
Total .....				

## NEUTRAL FILTERED OILS.

Description.	Inland (barrels).	Export (barrels).	Total (barrels).	Value.
Lemon, 33@24° .....				
White, 33@34° .....				
Bloomless, 32@34° .....				
Wool grade, 32° .....				
Total .....				

## FILTERED CYLINDER OILS.

Description.	Inland (barrels).	Export (barrels).	Total (barrels).	Value.
Light filtered .....				
Dark filtered .....				
Cold test .....				
Total .....				

## OINTMENTS AND GREASES.

Description.	Inland (barrels).	Export (barrels).	Total (barrels).	Value.
Greases .....				
Vaseline .....				
All other ointments .....				
Total .....				

## 458 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## 8. Goods manufactured and disposition of same—Continued.

## GASOLINE.

Specific gravity (Baumé).	Inland (barrels).	Export (barrels).	Total (barrels).	Value.
90° .....				
88° .....				
86° .....				
Total .....				

## NAPHTHA.

Specific gravity (Baumé).	Inland (barrels).	Export (barrels).	Total (barrels).	Value.
76° .....				
70° .....				
62° .....				
Crude .....				
Total .....				

## PARAFFINE WAX.

Description.	Inland (barrels).	Export (barrels).	Total (barrels).	Value.
Crude .....				
Refined .....				
Total .....				

## RESIDUUM PRODUCTS.

Description.	Inland.	Export.	Total.	Value.
Coke, bushels .....				
Carbon points, dozens .....				
Black naphtha, barrels .....				

All other products:

NOTE.—Refiners are requested to report here all products not included in the foregoing classification (including all by-products) which they may have manufactured directly from petroleum.

Description.	Quantity.	Value.
(a)	(a)	(a)
Product of carpenters' and coopers' shops (number of packages):		
Cases:       ; barrels:       ; half barrels:       ; less than half barrels: .....		
Product of tinnern's shop (number of packages):		
10-gallon:       ; 5-gallon:       ; less than 5-gallon: .....		
Total .....		
Aggregate value of all products .....		

a Several blank lines are printed in schedule.

[Inquiries numbered 9 to 12, inclusive, in general schedule No. 3 are common to this special schedule and are not here reproduced.]

## 13. Receipts:

## CRUDE PETROLEUM RECEIVED BY REFINER.

(January 1 to December 31, 1889.)

Month, 1889.	From transportation companies.		From wells.		From all other sources.		Total.
	Pipe lines.	Tank cars.	Wells owned by refiners.	Wells owned by others.	In barges.	In barrels.	
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Total .....							

a A blank for each month of the year printed in schedule.

## 14. Stocks:

## RAW MATERIALS.

	Crude Petroleum.	Residuum.	Crude paraffine wax.	Total.	Value.
Jan. 1, 1889.....					
Dec. 31, 1889.....					

## FINISHED PRODUCTS AND IN PROCESS OF COMPLETION.

	Gasoline.	Naphtha.	Burning oils.	Paraffine oil.	Value.
Jan. 1, 1889.....					
Dec. 31, 1889.....					

	Reduced oils.	Filtered oils.	Ointments.	Refined paraffine wax.	Value.
Jan. 1, 1889.....					
Dec. 31, 1889.....					

## 15. Disposition of acid sludge:

To fertilizer and chemical manufacturers—tons.

To manufacturers of sulphuric acid, to be restored—tons.

Ran to waste—tons.

NOTE.—Please state name of waterway into which sludge was run.

Name.

## 16. Buildings:

Description.	Number.	Capacity.
Cooper shops.....		
Tin shops .....		
Still's heated by steam.....		
Still's heated by superheated steam.....		
Still's heated by fire.....		
Agitators .....		
Chilling houses for paraffine.....		

## 17. Number of hydraulic presses or other presses.

## 18. Storage and transportation:

Description.	Number.	Capacity.
General storage tanks for crude petroleum.....		
General storage tanks for refined petroleum.....		
Tank cars.....		
Tank wagons.....		
Horses.....		
Mules.....		
Barges.....		
Steamships or other tank boats.....		
Towboats and lighters.....		

## 19. Classified wages:

NOTE.—It is earnestly desired that the following table be filled out with as much detail as possible. In the first column give the classes of employees by the name by which they are usually known, as engineers, stillmen, coopers, tinsmiths, etc.; in the second, the average number of employees of each class, and in others, wages, earnings, etc. Where men are paid by the month, please reduce wages to amount paid per day.

Classes of employees.	Number of each.	Wages when men are paid by day.	Wages when men are paid by the piece.	Earnings of piece-workers.	Days employed in year.
(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

## SPECIAL SCHEDULE.—DISTILLED SPIRITS USED IN THE ARTS, MANUFACTURES, AND MEDICINE.

(For the grocery trade.)

(Please read carefully the following instructions.)

1. Wholesale and retail grocers, after entering name, address, and business, will state in column I the quantity of alcohol and cognie spirit consumed and sold by them in the twelve months ending December 31, 1889.
2. State quantities in ordinary gallons. If, however, it is more convenient to give returns in proof gallons, do so, but *state the fact*.
3. Make no distinction between quantities "consumed" and "sold," but report both as one total.
4. Wholesale grocers who do also a retail business will make no distinction between the two departments, but will give the results of *both combined*.
5. In column II state whether bought from the grocery or druggists' trade, or, on the other hand, from the liquor trade (distillers or their agents). This is very important, as it will prevent the same quantity of alcohol, etc., from being counted a second time. Give this statement for both alcohol and cognie spirit.
6. If you do not consume or sell either of the above, please state the fact, and return this schedule promptly.

Name; Business; Street and No; Post-office; County; State.

Name of distilled spirits.	Column I. Number of gallons consumed and sold in year ending Dec. 31, 1889.	Column II. From whom bought—liquor trade or other trade. (See paragraph 5. above.)
1. Druggists' alcohol (or common alcohol).....		
2. Cognie spirit (called also deodorized alcohol, or white brandy)...		

## SPECIAL SCHEDULE.—DISTILLED SPIRITS USED IN THE ARTS, MANUFACTURES, AND MEDICINE.

(For manufacturers and the drug trade.)

*(Please read carefully the following instructions.)*

1. Manufacturers, wholesale druggists, and retail apothecaries, after entering name, address, and business, will state in column I the quantity of distilled spirits consumed and sold by them in the twelve months ending December 31, 1889.
2. State quantities in ordinary gallons. If, however, it is more convenient to give returns in proof gallons, do so, but *state the fact*.
3. Make no distinction between quantities "consumed" and "sold," but report both as one total.
4. Wholesale druggists who do also a retail apothecary business will make no distinction between the two departments, but will give the results of both combined.
5. In column II state whether bought from chemists and druggists, or, on the other hand, from the liquor trade (distillers or their agents). This is very important, as it will prevent the same quantity of alcohol, etc., from being counted a second time. Give this statement for each of the eight forms of spirits.
6. If you do not consume or sell any form of distilled spirits, please state the fact and return this schedule promptly.

Name; Business; Street and No.; Post-office; County; State.

Names of distilled spirits.	Column I. Number of gallons consumed and sold in year ending Dec. 31, 1889.	Column II. From whom bought—liquor trade or other trade. (See paragraph 5, above.)
1. Druggists' alcohol (or common alcohol) ..... 2. Cologne spirit (also called deodorized alcohol, neutral spirit, or sweet spirit) ..... 3. High wines ..... 4. Whisky ..... 5. Brandy ..... 6. Rum ..... 7. Gin ..... 8. Wine .....		

NOTE.—Be careful not to confound cologne spirit with common alcohol.

## SPECIAL SCHEDULE.—DISTILLED SPIRITS USED IN THE ARTS, MANUFACTURES, AND MEDICINE.

(For prisons, hospitals, asylums, homes, and all eleemosynary institutions.)

*(Please read carefully the following instructions.)*

1. The secretary or treasurer of the institution receiving this schedule, after entering name, address, and character of the institution, will state in Column I the quantity of distilled spirits used and dispensed in the twelve months ending December 31, 1889.
2. State quantities in ordinary gallons. If, however, it is more convenient to give returns in proof gallons, do so, but *state the fact*.
3. In Column II state whether bought from chemists and druggists, or, on the other hand, from the liquor trade (distillers or their agents). This is very important, as it will prevent the same quantity of alcohol, etc., from being counted a second time. Give this statement for each of the eight forms of spirits.

462 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

4. If you do not use or dispense any form of distilled spirits, please state the fact and return this schedule promptly.

Name; Street and No.; County; Character of institution; Post-office; State.

Names of distilled spirits.	Column I. Number of gallons used and dispensed in year ending December 31, 1889.	Column II. From whom bought—liquor trade or other trade. (See paragraph 3, above.)
1. Druggists' alcohol (or common alcohol)..... 2. Cologne spirit (also called deodorized alcohol, neutral spirit, or sweet spirit)..... 3. High wines..... 4. Whisky..... 5. Brandy..... 6. Rum..... 7. Gin..... 8. Wine.....		

NOTE.—Be careful not to confound cologne spirit with common alcohol.

SPECIAL SCHEDULE.—LIQUORS, DISTILLED.

Name of establishment; No.; State; County; Collection district; Post-office.

Month.	Materials used.								
	Malt.		Wheat.		Barley.		Rye.		Molasses.
	Pounds.	Bushels.	Pounds.	Bushels.	Pounds.	Bushels.	Pounds.	Bushels.	Gallons.
1889.			.						
June.....									
July.....									
August.....									
September.....									
October.....									
November.....									
December.....									
1890.									
January.....									
February.....									
March.....									
April.....									
May.....									
Total...									

Month.	Materials used—Continued.							
	Corn.		Oats.		Mill feed.		Other materials.	
	Pounds.	Bushels.	Pounds.	Bushels.	Pounds.	Bushels.	Pounds.	Bushels. Gallons.
1889.								
June.....								
July.....								
August.....								
September.....								
October.....								
November.....								
December.....								
1890.								
January.....								
February.....								
March.....								
April.....								
May.....								
Total...								

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 463

## SPECIAL SCHEDULE.—*Liquors, distilled*—Continued.

Month.	Goods manufactured.			
	Bourbon whisky.	Corn whisky.	Rye whisky.	Alcohol.
1889.				
June .....				
July .....				
August .....				
September .....				
October .....				
November .....				
December .....				
1890.				
January .....				
February .....				
March .....				
April .....				
May .....				
Total .....				

Month.	Goods manufactured—Continued.				
	Rum.	Gin.	High wines.	Pure, neutral, or cologne spirit.	Miscellaneous.
1889.					
June .....					
July .....					
August .....					
September .....					
October .....					
November .....					
December .....					
1890.					
January .....					
February .....					
March .....					
April .....					
May .....					
Total .....					

## SPECIAL SCHEDULE.—LIQUORS, FRUIT BRANDY.

Name of establishment; No.; State; County; Collection district; Post-office.

Month.	Materials used (in gallons).					
	Apple pomace.	Peach pomace.	Grape pomace.	Cider.	Must.	Sour wine.
1889.						
June .....						
July .....						
August .....						
September .....						
October .....						
November .....						
December .....						
1890.						
January .....						
February .....						
March .....						
April .....						
May .....						
Total .....						

464 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

SPECIAL SCHEDULE.—*Liquors, fruit brandy*—Continued.

Month.	Materials used (in gallons)—Continued.				Goods manufactured.	
	Wash.	Cheese.	Lees or piquette.	Other materials.	Brandy (wine gallons).	Brandy (proof gallons).
1889.						
June .....						
July .....						
August .....						
September .....						
October .....						
November .....						
December .....						
1890.						
January .....						
February .....						
March .....						
April .....						
May .....						
Total .....						

SPECIAL SCHEDULE.—LIQUORS, MALT.

Name of establishment; No.; State; County; Collection district; Post-office.

Month.	Materials used.					
	Malt (bushels).	Hops (pounds).	Corn (bushels).	Cerealine (bushels).	Rice (pounds).	Grape sugar (pounds).
1889.						
June .....						
July .....						
August .....						
September .....						
October .....						
November .....						
December .....						
1890.						
January .....						
February .....						
March .....						
April .....						
May .....						
Total .....						

Month.	Materials used—Continued.					
	Maltose (pounds).	Glucose (pounds).	Sirup (gallons).	Other materials.		
				Bushels.	Pounds.	Gallons.
1889.						
June .....						
July .....						
August .....						
September .....						
October .....						
November .....						
December .....						
1890.						
January .....						
February .....						
March .....						
April .....						
May .....						
Total .....						

SPECIAL SCHEDULE.—*Liquors, malt*—Continued.

Month.	Goods manufactured.													
	Ale.							Porter.						
	Hhds.	Bbls.	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{8}$	$\frac{1}{16}$	$\frac{1}{32}$	Hhds.	Bbls.	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{8}$	$\frac{1}{16}$	$\frac{1}{32}$
1889.														
June .....														
July .....														
August .....														
September .....														
October .....														
November .....														
December .....														
1890.														
January .....														
February .....														
March .....														
April .....														
May .....														
Total .....														

Month.	Goods manufactured—Continued.													
	Lager beer.							Other fermented liquor.						
	Hhds.	Bbls.	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{8}$	$\frac{1}{16}$	$\frac{1}{32}$	Hhd.	Bbls.	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{8}$	$\frac{1}{16}$	$\frac{1}{32}$
1889.														
June .....														
July .....														
August .....														
September .....														
October .....														
November .....														
December .....														
1890.														
January .....														
February .....														
March .....														
April .....														
May .....														
Total .....														

## SPECIAL SCHEDULES OF THE ELECTRICAL INDUSTRY.

## SPECIAL SCHEDULE No. 15.—ELECTRIC LIGHT AND POWER STATIONS.

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the establishment covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

Period covered by this return, year ending ....., 1890.

(Read carefully the explanatory notes, and examine all details of the entire schedule before commencing to fill it out. If in doubt about any point write for further information.)

1. Name of corporation, firm, or individual.

NOTE.—In the case of a company operating central stations located in different cities or towns a separate return should be made for each station.

2. Date when this station commenced operations:

If not now operated by original founders, give (a) name of immediate predecessor of present operators, and (b) date when present operators commenced operations if since June 1, 1880.

(a) Name.

(b) Date.

## 3. Character of service rendered:

- (a) Arc lighting: Residence; commercial; municipal.
- (b) Incandescent lighting: Residence; commercial; municipal.
- (c) Motor power: Stationary service.
- (d) Motor power: Motor-car service.

NOTE.—Answer the above by yes or no. If any service rendered is not classified above, specify its character.

If the corporation or firm is engaged in any business other than that of central station work, designate the character of such business. Entries in this schedule should pertain to electric central station work only.

Character of other business.

## 4. Capital invested (both owned and borrowed):

Value of plant (the value should be estimated at what the works would cost in 1890, if then to be erected, with such allowance for depreciation as may be suitable in the individual case).

## Resources:

Land.

Buildings.

Office fixtures and furniture.

Steam-power plant, and its accessories.

Electric plant within station, and its accessories.

Underground electric service construction.

Aerial electric service construction.

Lamps, motors, meters, and converters wired for use.

Lamps, globes, carbons, and wire, in stock for supply.

Motors, meters, and converters, in stock for supply.

Patent rights.

Supplies of every description on hand not enumerated in any of the foregoing items.

Cash, bills receivable, accounts due, and sundries not otherwise accounted for.

Total resources.

## 5. Capital, how held:

NOTE.—Credits to the account of the person or persons owning the business, if not an incorporated company, should be entered as personal investments. In the case of corporations having a definite capital stock, the sum to be reported is the amount of such capital actually paid in plus the amount credited as divided surplus, profits, or interest, and not the present market value of the stock.

## Liabilities:

Personal investments.

Capital stock paid in.

Surplus fund.

Undivided profits.

Bonds payable.

Bills and accounts payable and all other credits, exclusive of bonds.

Total liabilities.

If the business is conducted by private persons, state the number of persons interested in it, either as full or part owners.

If the business is conducted by an incorporated company, state the number of shareholders residing within the state and the number residing outside the state:

Number residing in the state.

Number residing outside the state.

Number of male shareholders.

Number of female shareholders.

If any colored persons have capital invested in this business, state how many and the amount of capital: No.; amount.

## 6. Labor and wages:

NOTE.—Hands employed on piecework and their earnings should be separately reported below. Wages paid should include board or rent furnished as part compensation.

## 6. Labor and wages—Continued.

Classes.	Average number employed during the year.	Total amount paid in wages during the year.
Superintendents (not general superintendents or managers), inspectors, engineers, firemen, dynamo engineers, linemen, and lamp trimmers:		
Males above 16 years.....		
Females above 15 years.....		
Children.....		
Officers or firm members:		
Males.....		
Females.....		
Clerks or salesmen:		
Males above 16 years.....		
Females above 15 years.....		
Children.....		
Helpers, watchmen, laborers, teamsters, and other unskilled workmen:		
Males above 16 years.....		
Females above 15 years.....		
Children.....		
Piecework (not included in the foregoing statement):		
Males above 16 years.....		
Females above 15 years.....		
Children.....		
Total.....		

Weekly rates of wages paid and average number of hands employed at each rate (not including those employed on piecework):

Rates per week.	Males above 16 years.	Females above 15 years.	Children.
Under \$5.00.....			
\$5.00 and over, but under \$6.00.....			
6.00 and over, but under 7.00.....			
7.00 and over, but under 8.00.....			
8.00 and over, but under 9.00.....			
9.00 and over, but under 10.00.....			
10.00 and over, but under 12.00.....			
12.00 and over, but under 15.00.....			
15.00 and over, but under 20.00.....			
20.00 and over, but under 25.00.....			
25.00 and over.....			

## 7. Time in operation during the year:

Months in operation, May to November.  
Hours operated per day, May to November.  
Months in operation, November to May.  
Hours operated per day, November to May.

## 8. Hours in the ordinary day of labor:

NOTE.—If the station is operated more than ten hours per day, specify the number of hours that constitute a day's work for each class of workmen employed.

Superintendents, hours per day.  
Inspectors, hours per day.  
Engineers, hours per day.  
Firemen, hours per day.  
Dynamo engineers, hours per day.  
Linemen, hours per day.  
Lamp trimmers, hours per day.  
Unskilled workmen, hours per day.

## POWER IN USE IN ELECTRIC CENTRAL STATIONS.

## 9. Steam boilers:

Total number of boilers in use.

Total horsepower capacity.

*Specifications of boilers.*—If types other than those named are used, describe the type and give information corresponding to that required below. (Specify types as tubular or water tube.)

Types of boiler.	Size.	Number of each type and size.	Steam pressure.		Horsepower capacity at steam pressure.	
			Average.	Maximum.	Average.	Maximum.
(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

## 10. Steam engines:

Total number of engines in use.

Total horsepower capacity.

*Specifications of engines.*—If types other than those named are used, describe the type and give information corresponding to that required below. (Specify types as simple, compound, or triple expansion, and as condensing or non-condensing.)

Types.	Size of cylinder.	Number of each type and size.	Number of revolutions per minute.	Steam pressure.		Horsepower capacity at steam pressure.	
				Average.	Maximum.	Average.	Maximum.
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

## 11. Cost of steampower, per horsepower, per day of ten hours.

## 12. Water power:

Total number of water wheels in use.

Total horsepower capacity.

*Specifications of water wheels.*—Describe the type and give information corresponding for each type used.

Type.	Size.	Number of each type and size.	Head of water used.		Horsepower capacity at head of water.	
			Average.	Maximum.	Average.	Maximum.
(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

## 13. Cost of water power, per horsepower, per day of ten hours.

## 14. Miscellaneous power:

If power other than steam or water is used, describe the same and give information regarding it corresponding to that required for steam or water. If power is rented, state the total horsepower, kind of power, and give the name of the establishment from which it is rented.

State cost of power, per horsepower, per day of ten hours.

## FUEL USED IN ELECTRIC CENTRAL STATIONS.

## 15. Coal:

NOTE.—Use the long or short ton or other unit, according to your usual custom, but state definitely the number of pounds in the unit used. If any calculations are made, such as determining the total value of the coal used from the price per ton or bushel, it is requested that such calculations be made on the blank pages of this schedule. These blank pages may also be used for any remarks explanatory of the answers given.

## 15. Coal—Continued.

Kind.	Size or quality.	Customary unit of measure.	Number of pounds in unit of measure.	Total quantity used per year, stated in customary unit.	Total cost per year delivered on premises.
Anthracite .....					
Semibituminous .....					
Bituminous .....					
Lignite .....					
[3 blank lines.]					

16. Give horsepower of steam raised per specified quantity of coal used, stated in customary unit:

Horsepower of steam raised.

Quantity of coal used.

17. Crude petroleum:

Give the trade name of the oil used or the name of the producing company from whom it is procured.

Name of oil used.	Total quantity used per year, stated in barrels of 42 gallons.	Total cost, delivered on premises.	Method of delivery (pipe line, tank cars, or barrels).	Horsepower of steam raised per barrel of 42 gallons.
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

18. Natural gas:

State approximate distance of plant from wells: Miles.

State length of time gas has been used: Years; months.

State number of stoppages that have occurred by reason of failure of gas supply. Give duration and cause of each stoppage.

State method of charging for use of gas. If by meter, state total quantity used per year in millions of feet.

State horsepower of steam raised per million feet of gas.

State total cost of gas per year, delivered on premises.

19. Other fuels:

If other fuels are used, state kind, quantity, and cost, in details corresponding with the requirements in this schedule.

## ELECTRICAL STATION APPARATUS—DYNAMOS IN USE.

20. Type of dynamo designated by character of current generated:

Character of current:

Continuous current, constant voltage, variable amperage: Number of dynamos.

Continuous current, variable voltage, constant amperage: Number of dynamos.

Alternating current, constant voltage, variable amperage: Number of dynamos.

Alternating current, variable voltage, constant amperage: Number of dynamos.

If continuous current, state whether pulsating or otherwise: Number of dynamos.

If alternating current, state rate of alternations: Number of dynamos.

NOTE.—If currents of other description are in use, give corresponding information.

21. Type of dynamos designated by character of winding and commutator segments:

Number of dynamos of each type.	Manner of connecting coils electrically.	How excited.	Number of commutator segments.
(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

NOTE.—If dynamos are in use that can not be properly classed as above, give corresponding information.

## 470 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### 22. Capacity of dynamos in use (specify types, as series, shunt, compound, or special):

How wound.	Number of dynamos.	Capacity of each in volts.	Capacity of each in amperes.	Capacity of each in watts.
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

### 23. Currents generated by dynamos operated in series or multiple:

- Number of dynamos connected.
- Winding of dynamos connected.
- How connected electrically.
- Character of current generated.
- Capacity of current generated: Volts; amperes; watts.
- Are dynamos so connected and operated regularly, or in case of emergency only?
- Give greatest capacity of currents ever generated for practical use: Volts; amperes; watts.

### SCIENTIFIC ELECTRICAL INSTRUMENTS USED IN STATION.

### 24. Give below a list showing number and character of all instruments and apparatus in use in the station, except dynamos.

### LINE CONSTRUCTION.

### 25. Underground current conductors:

- Character of current:
  - Continuous current, constant voltage, variable amperage: Number of conductors.
  - Continuous current, variable voltage, constant amperage: Number of conductors.
  - Alternating current, constant voltage, variable amperage: Number of conductors.
  - Alternating current, variable voltage, constant amperage: Number of conductors.

NOTE.—If currents of other description are in use, give corresponding information.

### 26. Submarine current conductors:

- Character of current:
  - Continuous current, constant voltage, variable amperage: Number of conductors.
  - Continuous current, variable voltage, constant amperage: Number of conductors.
  - Alternating current, constant voltage, variable amperage: Number of conductors.
  - Alternating current, variable voltage, constant amperage: Number of conductors.

NOTE.—If currents of other description are in use, give corresponding information.

### 27. Part underground and part aerial current conductors:

- Character of current:
  - Continuous current, constant voltage, variable amperage: Number of conductors.
  - Continuous current, variable voltage, constant amperage: Number of conductors.
  - Alternating current, constant voltage, variable amperage: Number of conductors.
  - Alternating current, variable voltage, constant amperage: Number of conductors.

NOTE.—If currents of other description are in use, give corresponding information.

## 28. Aerial current conductors:

## Character of current:

Continuous current, constant voltage, variable amperage: Number of conductors.

Continuous current, variable voltage, constant amperage: Number of conductors.

Alternating current, constant voltage, variable amperage: Number of conductors.

Alternating current, variable voltage, constant amperage: Number of conductors.

NOTE.—If currents of other description are in use, give corresponding information.

## PRIMARY CURRENTS.

## 29. Aerial service:

NOTE.—If current conductors are partly underground and partly aerial, give below the specifications of the aerial construction only. (Specify character of current, as continuous current, constant voltage, variable amperage; continuous current, variable voltage, constant amperage; alternating current, constant voltage, variable amperage; or alternating current, variable voltage, constant amperage.)

Character of current.	Total length of conductors of each size.	Size of conductors in circular mils.	Current carried.	
			Highest voltage.	Highest amperage.
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

Give character of insulation, thickness, and length of time that each kind has been in use.

Average number of poles per mile; character of wood.

Character of soil; average life of poles.

Number of poles part wood and part iron.

Total length of conductors on poles.

Total length of conductors on house tops.

Total length of conductors on elevated railroad structures.

Total length of conductors on bridges.

Total number of service connections.

State the total cost of all aerial conductors.

State the annual cost of maintenance for all aerial conductors.

State number of stoppages that have been occasioned by faults occurring on aerial conductors, and describe cause.

State number of breakages that have occurred on lines, and the cause of the same.

State number of times wires have been cut by local authorities to remove obstructions to firemen's work or for other causes, giving reasons in full.

## CHARACTER OF SERVICE.

## 30. Residence lighting:

Incandescent lamps, total number wired.

Arc lamps, total number wired.

## 31. Commercial lighting:

Incandescent lamps, total number wired.

Arc lamps, total number wired.

## 32. Municipal lighting:

Incandescent lamps, total number wired.

Arc lamps, total number wired.

## 33. System of hanging arc lamps for street lighting:

Lamps on poles: Number of double lamps; number of single lamps.

Double lamp current: Voltage; amperage.

Single lamp current: Voltage; amperage.

Height of arc above street.

Lamps on mast arms: Number of double lamps; number of single lamps.

Double lamp current: Voltage; amperage.

Single lamp current: Voltage; amperage.

Height of arc above street.

472 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

33. System of hanging arc lamps for street lighting—Continued.  
Lamps over center of street: Number of double lamps; number of single lamps.  
Double lamp current: Voltage; amperage.  
Single lamp current: Voltage; amperage.  
Height of arc above street.  
Lamps on towers: Number of double lamps; number of single lamps.  
Double lamp current: Voltage; amperage.  
Single lamp current: Voltage; amperage.  
Height of arc above street.
34. Lamp-trimming system:  
Describe system of trimming lamps, such as lowering with pulley, mast arm, reached with ladder, or any other method.
35. Stationary motors:  
Total number of motors in use.  
Total horsepower of motors in use.  
Distance from dynamo to farthestmost motor.  
Total number of persons employed in industry: Males; females.  
Character of industries operated by electric-motor power. Give a full list, naming each kind of work being done.
36. Car motors:  
NOTE.—Street-car motors only being supplied with current under contract should be reported under this heading.  
Total number of motors being supplied.  
Total horsepower of motors being supplied.  
Distance from dynamo to farthestmost terminal.

ELECTRICAL OUTPUT OF STATION.

37. Load represented by all connected devices:  
Average daily run in hours.  
Character of current.  
Maximum load: Volts; amperes; watts.  
Minimum load: Volts; amperes; watts.  
Average load during run: Volts; amperes; watts.  
Hours of day and duration in hours of maximum load:  
May to November: Hours of day; duration.  
November to May: Hours of day; duration.  
Hours of day and duration in hours of minimum load:  
May to November: Hours of day; duration.  
November to May: Hours of day; duration.
38. Area served by station:  
State greatest distance traversed by current from brush to brush.  
State approximate area served by station in square miles, and give a description of the same.

INCOME.

39. Total annual income:  
From incandescent lighting.  
From arc lighting.  
From stationary motors.  
From car motors (for current supplied by contract).  
From sundry sources not enumerated.  
Total income from all sources.

EXPENSES.

40. Office expenses:  
Give total expenses for the year:  
Rent.  
Salaries.  
Sundries.  
Total annual office expenses.
41. General fixed charges:  
Give total fixed charges for the year:  
Insurance, total amount of annual premium.  
Interest at      per cent on total investment, annual amount.  
Taxes, rate per cent      , annual amount.  
Patent license and royalties, annual amount.

## 41. General fixed charges—Continued.

Give total fixed charges for the year—continued.

Franchise licenses and royalties, annual amount.

Depreciation on buildings, rate per cent , annual amount.

Total general fixed charges.

## 42. Steam plant—Station expenses:

NOTE.—Include all expenses of boiler and engine room, shafting, and accessories to dynamo belt.

Wages:

Engineers, total annual wages.

Firemen, total annual wages.

Helpers, teamsters, and all other laborers.

Total annual wages for steam plant.

Supplies:

Fuel, total annual cost.

Oil, total annual cost.

Waste, total annual cost.

Water, total annual cost.

Repairs, total annual cost.

Sundries, total annual cost.

Total annual cost of supplies for steam plant.

## 43. Steam plant—Station expenses—Continued:

Fixed charges:

Rent, total annual amount (divide with electric plant).

Depreciation on plant, rate per cent , annual amount.

Total annual fixed charges for steam plant.

Total annual expenses of steam plant for wages, supplies, and fixed charges.

## 44. Electric plant—Station expenses:

NOTE.—Include all expenses of dynamo room and electric service within the station.

Wages:

Dynamo engineers, total annual wages.

Helpers and other employees.

Total annual wages for electric plant.

Supplies:

Oil, total annual cost.

Waste, total annual cost.

Repairs, total annual cost.

Sundries, total annual cost.

Total annual cost of supplies for electric plant.

Fixed charges:

Rent, total annual amount (divide with steam plant).

Depreciation on plant, rate per cent , annual amount.

Total annual fixed charges for electric plant.

Total annual expenses of electric plant for wages, supplies, and fixed charges.

## 45. Expenses of distribution:

NOTE.—Include all expenses pertaining to the maintenance of service lines, care and renewal of lamps, and all contingencies outside of the station.

Wages:

Superintendent, total annual wages.

Inspectors, total annual wages.

Linemen, total annual wages.

Lamp trimmers, total annual wages.

All other employees, total annual wages.

Total annual wages for distribution.

Supplies:

Incandescent lamps for renewals, total annual cost.

Carbons for arc lamps, total annual cost.

Globes for arc lamps, total annual cost.

Hoods for arc lamps, total annual cost.

Lamp repairs, total annual cost.

Poles or other supports, total annual cost for repairs or renewals.

Wire used for repairs or renewals, total annual cost.

Sundry supplies, total annual cost.

Sundry repairs, total annual cost.

Contingencies, total annual cost.

Total annual cost of supplies for distribution.

## 474 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### 45. Expenses of distribution—Continued.

#### Fixed charges:

- Rentals for poles, total annual amount.
- Rentals for house tops or other privileges, total annual amount.
- Rentals for elevated railway privileges, total annual amount.
- Rentals for conduits or underground privileges, total annual amount.
- Depreciation on line construction, rate per cent , annual amount.
- Total annual cost of all fixed charges for distribution.

### 46. Water-power plant expenses:

- Total investment in water-power plant.
- Repairs, total annual amount.
- Depreciation, rate per cent , total annual amount.
- Sundry charges for maintenance, total annual amount.
- Rental (if not owned), total annual amount.
- Total annual expenses of all kinds for water-power plant.

#### Recapitulation:

- Total annual office expenses.
- Total annual general fixed charges.
- Total annual steam-power plant expenses.
- Total annual water-power plant expenses.
- Total annual electric-plant expenses.
- Total annual distribution expenses.
- Total annual expenses of all kinds.

#### ARC-LAMP SERVICE.

### 47. Character of currents:

- Primary continuous current—total number of single lamps wired.
  - Voltage of lamp; amperage of lamp.
  - Character of feed for carbons.
  - Mechanical horsepower required at dynamo belt to operate each lamp.
  - Largest number of single lamps on one circuit.
- Primary continuous current—total number of double lamps wired.
  - Voltage of lamp; amperage of lamp.
  - Character of feed for carbons.
  - Mechanical horsepower required at dynamo belt to operate each lamp.
  - Largest number of double lamps on one circuit.
- Primary continuous converted to secondary continuous—total number of single lamps wired for secondary current.
  - Voltage of primary current; voltage of secondary current.
  - Voltage of lamp; amperage of lamp.
  - Character of feed for carbons.
  - Mechanical horsepower required at dynamo belt to operate each lamp.
  - Largest number of single lamps on one circuit.
- Primary continuous converted to secondary continuous—total number of double lamps wired for secondary current.
  - Voltage of primary current; voltage of secondary current.
  - Voltage of lamp; amperage of lamp.
  - Character of feed for carbons.
  - Mechanical horsepower required at dynamo belt to operate each lamp.
  - Largest number of double lamps on one circuit.
- Primary alternating converted to secondary alternating—total number of single lamps wired for secondary current.
  - Voltage of primary current; voltage of secondary current.
  - Voltage of lamp; amperage of lamp.
  - Character of feed for carbons.
  - Mechanical horsepower required at dynamo belt to operate each lamp.
  - Largest number of single lamps on one circuit.
- Primary alternating converted to secondary alternating—total number of double lamps wired for secondary current.
  - Voltage of primary current; voltage of secondary current.
  - Voltage of lamp; amperage of lamp.
  - Character of feed for carbons.
  - Mechanical horsepower required at dynamo belt to operate each lamp.
  - Largest number of double lamps on one circuit.

### 48. System of wiring lamps on primary currents:

- In multiple—total number of lamps wired: Single; double.
- In series multiple—total number of lamps wired: Single; double.

48. System of wiring lamps on primary currents—Continued.
  - In series—total number of lamps wired: Single; double.
  - In multiple series—total number of lamps wired.
  - Three-wire systems—total number of lamps wired.
  - Double pressure three-wire system, two lamps in series on each side of system—total number of lamps wired: Single; double.
  - Total number of lamps wired on incandescent lamp current conductors: Single; double.
49. System of wiring lamps on secondary currents:
  - In multiple—total number of lamps wired: Single; double.
  - In series multiple—total number of lamps wired: Single; double.
  - In series—total number of lamps wired: Single; double.
  - In multiple series—total number of lamps wired: Single; double.
  - Three-wire systems—total number of lamps wired: Single; double.
  - Total number of lamps wired on incandescent lamp current conductors: Single; double.
50. Lamps wired:
  - Single carbon lamps: Total number; voltage; amperage.
  - Double carbon lamps: Total number; voltage; amperage.
  - Lamps wired at the commencement of business:
    - Single carbon lamps: Total number; voltage; amperage.
    - Double carbon lamps: Total number; voltage; amperage.
51. Annual consumption of carbons:
  - Plain carbons: Total number per year; diameter; length; cost.
  - Coppered carbons: Total number per year; diameter; length; cost.
52. Income from residence lighting:
  - Single carbon lamps: Total number; voltage; amperage.
  - Net rate of charge; hours per day at rate of charge.
  - What was the net rate at the commencement of business?
  - Total annual income from single carbon lamps for residence lighting.
  - Double carbon lamps: Total number; voltage; amperage.
  - Net rate of charge; hours per day at rate of charge.
  - What was the net rate at the commencement of business?
  - Total annual income from double carbon lamps for residence lighting.
53. Income from commercial lighting:
  - Single carbon lamps: Total number; voltage; amperage.
  - Net rate of charge; hours per day at rate of charge.
  - What was the net rate at the commencement of business?
  - Total annual income from single carbon lamps for commercial lighting.
  - Double carbon lamps: Total number; voltage; amperage.
  - Net rate of charge; hours per day at rate of charge.
  - What was the net rate at the commencement of business?
  - Total annual income from double carbon lamps for commercial lighting.
54. Income from municipal lighting:
  - Character of lighting schedule.
  - Total number of hours of lighting per year required by lighting schedule.
  - Length of time for which lighting contract is made.
  - Does municipality furnish lamps, pole line, or any part of the plant or construction? If so, what?
  - Does municipality pay for broken globes, lamp trimming, or any part of the expense or cost of maintenance? If so, what?
  - What rebates or penalties are collected by municipality on failure of service?
  - Single carbon lamps: Total number; voltage; amperage.
  - Net rate of charge; hours per day at rate of charge.
  - What was the net rate at the commencement of business?
  - Total annual income from single carbon lamps for municipal lighting.
  - Double carbon lamps: Total number; voltage; amperage.
  - Net rate of charge; hours per day at rate of charge.
  - What was the net rate at the commencement of business?
  - Total annual income from double carbon lamps for municipal lighting.
55. Total annual income from arc lighting:
  - Total annual income from residence lighting.
  - Total annual income from commercial lighting.
  - Total annual income from municipal lighting.
  - Total income from all sources.

# 476 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## INCANDESCENT-LAMP SERVICE.

### 56. Character of currents:

Primary continuous: Total number of lamps wired; voltage.  
 Primary continuous converted to secondary continuous: Total number of lamps wired for secondary current; voltage.  
 Voltage of primary current; voltage of secondary current.  
 Primary alternating converted to secondary alternating: Total number of lamps wired for secondary current; voltage.  
 Voltage of primary current; voltage of secondary current.

### 57. System of wiring lamps on primary currents:

In multiple—total number of lamps wired.  
 In series multiple—total number of lamps wired.  
 In series—total number of lamps wired.  
 In multiple series—total number of lamps wired.  
 Three-wire systems—total number of lamps wired.  
 Double pressure three-wire system, two lamps in series on each side of system—total number of lamps wired.

Total number of lamps wired on arc lamp current conductors.

### 58. System of wiring lamps on secondary currents:

In multiple—total number of lamps wired.  
 In series multiple—total number of lamps wired.  
 In series—total number of lamps wired.  
 In multiple series—total number of lamps wired.  
 Three-wire systems—total number of lamps wired.

Total number of lamps wired on arc lamp current conductors.

### 59. Lamps wired:

Present number wired.	Candlepower.	Voltage required per lamp.	Amperage required per lamp.	Average life of lamps, in hours.	Total number of lamps wired at commencement of business.
(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

Number of lamps operated per mechanical horsepower delivered at dynamo belt, 16 C. P. unit.

### 60. Lamps required for renewals per year:

Total number each C. P.	Candlepower.	Total number each C. P. burned out.	Total number each C. P. mechanically broken or imperfect.	Price each.	Total value.
(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

### 61. Income from residence lighting:

Charges, how made, by meter or contract.

#### Meter charge:

Net rate per ampere hour.  
 What was the net rate at the commencement of business?  
 Number of hours of service per day.  
 Total number of lamps wired, meter service, 16 C. P. unit.  
 Does the consumer pay for lamp renewals?  
 Does the consumer pay meter rent? If so, give rate per 16 C. P. lamp.  
 Total annual income from residence lighting collected on the basis of meter charges.

#### Contract charge:

Net rate per month.  
 What was the net rate at the commencement of business?  
 Number of hours of service per day at rate of charge.  
 Total number of lamps wired, contract service, 16 C. P. unit.  
 Does the consumer pay for lamp renewals?  
 Total annual income from residence lighting collected on the basis of contract charges.

62. Income from commercial lighting:  
 Charges, how made, by meter or contract.  
 Meter charge:  
     Net rate per ampere hour.  
     What was the net rate at the commencement of business?  
     Number of hours of service per day.  
     Total number of lamps wired, meter service, 16 C. P. unit.  
     Does the consumer pay for lamp renewals?  
     Does the consumer pay meter rent? If so, give rate per 16 C. P. lamp.  
         Total annual income from commercial lighting collected on the basis of meter charges.  
 Contract charge:  
     Net rate per month.  
     What was the net rate at the commencement of business?  
     Number of hours of service per day at rate of charge.  
     Total number of lamps wired, contract service, 16 C. P. unit.  
     Does the consumer pay for lamp renewals?  
         Total annual income from commercial lighting collected on the basis of contract charges.
63. Income from municipal lighting:  
 Length of time for which contract is made.  
 Character of lighting schedules.  
 Total number of lighting hours per year in lighting schedule.  
 Charges, how made, by meter or contract.  
 Meter charge:  
     Net rate per ampere hour.  
     What was the net rate at the commencement of business?  
     Number of hours of service per day.  
     Total number of lamps wired, meter service, 16 C. P. unit.  
     Does the consumer pay for lamp renewals?  
     Does the consumer pay meter rent? If so, give rate per 16 C. P. lamp.  
         Total annual income from municipal lighting collected on the basis of meter charges.  
 Contract charge:  
     Net rate per month.  
     What was the net rate at the commencement of business?  
     Number of hours of service per day at rate of charge.  
     Total number of lamps wired, contract service, 16 C. P. unit.  
     Does the consumer pay for lamp renewals?  
         Total annual income from municipal lighting collected on the basis of contract charges.
64. Total annual income from incandescent lighting:  
 Total annual income from residence lighting.  
 Total annual income from commercial lighting.  
 Total annual income from municipal lighting.  
 Total income from all sources.

STATIONARY MOTOR SERVICE.

65. Character of currents:  
 Primary continuous, constant voltage—total number of motors wired; voltage.  
     Total horsepower of motors wired.  
 Primary continuous, variable voltage—total number of motors wired; voltage.  
     Total horsepower of motors wired.  
 Primary continuous converted to secondary continuous—total number of motors wired for secondary current; voltage.  
     Total horsepower of motors wired.  
 Voltage of primary current; voltage of secondary current.  
 Primary alternating converted to secondary alternating—total number of motors wired for secondary current; voltage.  
     Total horsepower of motors wired.  
 Voltage of primary current; voltage of secondary current.
66. System of wiring motors on primary currents:  
 In multiple—total number of motors wired; total horsepower.  
 In series-multiple—total number of motors wired; total horsepower.  
 In series—total number of motors wired; total horsepower.  
 In multiple series—total number of motors wired; total horsepower.

478 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

66. System of wiring motors on primary currents—Continued.

Three-wire systems—total number of motors wired; total horsepower.

Double pressure three-wire system, two motors in series on each side of system—total number of motors wired; total horsepower.

Total number of motors wired on arc lamp current conductors; total horsepower.

Total number of motors wired on incandescent lamp current conductors; total horsepower.

Total horsepower.

67. System of wiring motors on secondary currents:

In multiple—total number of motors wired; total horsepower.

In series-multiple—total number of motors wired; total horsepower.

In series—total number of motors wired; total horsepower.

In multiple-series—total number of motors wired; total horsepower.

Three-wire systems—total number of motors wired; total horsepower.

Total number of motors wired on arc lamp current conductors; total horsepower.

Total number of motors wired on incandescent lamp current conductors; total horsepower.

Total horsepower.

68. Recapitulation:

Total number of motors wired.

Total horsepower of motors wired.

Total number of motors wired at the commencement of business.

Total horsepower of motors wired at the commencement of business.

69. Income from stationary motor service:

Charges, how made, by meter or contract.

Meter charge:

Total number of meters wired for motor service.

Total number of motors wired on basis of meter charges.

Total horsepower of motors wired on basis of meter charges.

Total annual income from motor service collected on the basis of meter charges.

Does the consumer pay meter rent? if so, state at what rate.

Number of motors wired each horsepower.	Horsepower of motors wired.	Present rate per month.	Rate per month at commencement of business.	Number of month at service per day at rate of charge.
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

Character of work being done by motors, current supplied by meter charge.

Contract charge:

Total number of motors wired on basis of contract charges.

Total horsepower of motors wired on basis of contract charges.

Total annual income from motor service collected on the basis of contract charges.

Number of motors wired each horsepower.	Horsepower of motors wired.	Present rate per month.	Rate per month at commencement of business.	Number of hours of service per day at rate of charge.
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

Character of work being done by motors, current supplied by contract charge.

70. Total annual income from stationary motor service.

Total annual income from meter charges.

Total annual income from contract charges.

Total income from all sources.

## SECONDARY CURRENTS.

## 71. From accumulators:

Give total number and capacity of all cells connected with each primary current conductor:

Switch-board number of conductor.	Total number of cells wired to each conductor.	Number of cells with horizontal plates.	Number of cells with perpendicular plates.	Total amperage capacity of all cells wired to each conductor.
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

Character of primary current.

Primary current: Voltage; amperage.

Secondary current: Voltage; amperage.

Give greatest length of secondary current conductor connected with a single battery of cells.

State how cells are wired to primary current and conductors:

Number in series.

Number in multiple.

State total capacity of all cells in circuit in ampere hours.

State load of all cells in circuit:

Maximum load, amperes.

Minimum load, amperes.

Average load, amperes.

## 72. Description of accumulators:

Plates: Size; material; weight.

Electrolyte cells: Size; material; quantity of electrolyte.

Number of plates in each cell.

Weight of each cell complete.

Ampere-hour capacity of each cell at average rate of discharge.

Annual cost per cell for renewals, supplies, and maintenance.

## 73. Description of accumulator batteries:

Number of cells connected in each battery.

Wiring system for connecting cells in battery.

Number of batteries in use.

Length of time in use.

Ampere capacity of all cells in battery.

## 74. Description of charging current:

Type of dynamo, designated by character of current generated.

Type of dynamo, designated by character of winding field and armature.

Voltage of charging current: Highest; lowest; average.

Amperage of charging current: Highest; lowest; average.

Time required for full charge at average rate, hours.

## 75. Description of discharging current:

Voltage of discharging current: Highest; lowest; average.

Amperage of discharging current: Highest; lowest; average.

Time required for full discharge at medium rate, hours.

Initial voltage, range; final voltage.

## 76. Description of service performed:

Light.

Power.

## SECONDARY CURRENTS.

## 77. From converters:

Give total number and capacity of converters connected with each primary current conductor:

Switch-board number of conductor.	Total number of converters wired on each conductor.	Total amperage capacity of all converters wired on each conductor.
(a)	(a)	(a)

a Several

uted in schedule.

# 480 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## 77. From converters—Continued.

Character of primary current.

Primary current: Voltage; amperage.

Secondary current: Voltage; amperage.

Give greatest length of secondary current conductor connected with a single converter.

## 78. Converters wired:

Number of each capacity.	Capacity in amperes.	Number on poles.	Number outside of building.	Number inside of building.
(a)	(a)	(a)	(a)	(a)

*a* Several blank lines are printed in schedule.

State average distance between converter connections to primary current conductors.

State how converters are wired to primary current conductors:

Number in series.

Number in multiple.

State total amperage capacity of all converters in circuit.

State load of all converters in circuit:

Maximum load, amperes.

Minimum load, amperes.

Average load, amperes.

## UNDERGROUND CONDUITS.

## 79. Mechanical construction:

If underground conduits are rented, give full name and address of company owning same.

Material used.

Depth of upper duct or tube below surface.

Number of ducts in each conduit.

Size of ducts.

Inside diameter of largest duct or tube.

Inside diameter of smallest duct or tube.

Length of duct or tube between joints.

Total length of conduit for any number of ducts.

Total length of all ducts or tubes.

Distance between manholes or junction boxes.

Distance between hand-holes.

Size of manhole or junction box.

(If more than one size is used, give each size in use.)

Size of hand-hole.

Largest number of ducts opening into one manhole.

Smallest number of ducts opening into one manhole.

Largest number of tubes leading to one junction box.

(If underground conduits are supplemented by subareas, space under walks, tunnels, or other excavations, state the length and character of all excavations so used.)

Give length of time conduits have been in use.

Give total cost of conduits.

Give annual cost of maintenance of conduits.

State number of stoppages of service caused by explosions or mechanical obstructions or interference with conduits, and give an explanation of same.

## PRIMARY CURRENTS.

## 80. Underground service:

NOTE.—If current conductors are partly underground and partly aerial, give below the specifications of the underground construction only. (Specify character of currents, as continuous current, constant voltage, variable amperage, continuous current, variable voltage, constant amperage; alternating current, constant voltage, variable amperage; or alternating current, variable voltage, constant amperage. If currents of other descriptions are in use, give corresponding information.)

## 80. Underground service—Continued:

Character of current.	Length of conductors.	Size of conductors in circular mils.	Highest voltage.	Highest amperage.
(a)	(a)	(a)	(a)	(a)

*a* Several blank lines are printed in schedule.

Give character of insulation, thickness, and length of time that each kind has been in use.  
 Give character of mechanical protection, thickness, and length of time that each kind has been in use.  
 Are conductors drawn into conduits or laid in filled tubes?  
 Character of filling used in tubes.  
 Largest number of conductors in one duct.  
 Largest number of conductors passing through or leading into one manhole or junction box.  
 Largest number of service connections made in one manhole or junction box.  
 Largest number of service connections made between manholes or junction boxes.  
 Total number of service connections made with underground conductors.  
 State the total cost of all underground conductors.  
 State the annual cost of maintenance for all underground conductors.  
 State the number of stoppages that have been occasioned by faults occurring on underground conductors, and describe causes.

## ELECTRIC METERS.

## 81. Mechanical meters:

Total number wired.  
 State unit of meter.  
 State capacity of meter in its unit.  
 State capacity of all meters wired, 16 C. P. unit.  
 Average cost of meters per 16 C. P. unit.  
 Average annual cost of maintenance of meters per 16 C. P. unit.

## 82. Chemical meters:

Total number wired.  
 State unit of meter.  
 State capacity of meter in its unit.  
 State capacity of all meters wired, 16 C. P. unit.  
 Average cost of meters per 16 C. P. unit.  
 Average annual cost of maintenance of meters per 16 C. P. unit.

## 83. Remarks:

Give description of meters wired, degree of accuracy, how readings are registered, and any other data considered essential.

SPECIAL SCHEDULE No. 15*a*.—MANUFACTURES OF ELECTRICAL APPARATUS, INSTRUMENTS, AND SUPPLIES.

State; County; Post-office; S. D.; E. D. . . . ., Special Agent or Enumerator.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the establishment covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

*(Read carefully the explanatory notes, and examine all details of the entire schedule before commencing to fill it out. If in doubt about any point, write for further information.)*

[Inquiries numbered 1 and 2 in general schedule No. 3 are common to this schedule and are not here reproduced.]

## 3. Character of principal products:

If the corporation or firm is engaged in any business other than that specified by the title of this schedule, designate the character of such business. Entries in this schedule should pertain to manufactures of electrical apparatus, instruments, and supplies only

S. Doc. 194—

## 482 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### 3. Character of principal products—Continued.

Character of other business.

If electric service for residence, commercial, or municipal lighting, or for stationary motors or car motors is supplied from manufacturing plant, specify the same.

### 4. Capital invested (both owned and borrowed):

Value of plant (the value should be estimated at what the works would cost in 1890, if then to be erected, with such allowance for depreciation as may be suitable in the individual case).

Resources:

Land.

Buildings.

Machinery, tools, and implements.

Total.

Live capital:

Raw materials on hand.

Stock in process, and finished products on hand.

Patents (owned in whole or in part).

Bonds and stocks of other electrical manufacturing companies.

Bonds and stocks of other electric central station companies.

Bonds and stocks of electric railway companies.

Bonds and stocks of telegraph and telephone companies.

Bonds and stocks of companies not electrical.

Cash on hand, bills receivable, unsettled ledger accounts, and sundries not included in any of the foregoing items.

Total resources.

Average annual allowance since June 1, 1880, for depreciation of buildings and machinery.

[The inquiry of "capital, how held" in special schedule No. 15 is common to the inquiry in this schedule and is not here reproduced.]

[Inquiries numbered 5 to 11, inclusive, in general schedule No. 3 are common to this special schedule (except that in inquiry 9 an additional inquiry is made as to "overtime," and an addition made to the note as follows: "The time in operation in excess of a legal day for each working day in a month is overtime." The aggregate will be the "overtime" of the year) and are not here reproduced.]

## SPECIAL SCHEDULE No. 15b.—ISOLATED ELECTRIC LIGHT AND POWER PLANTS.

State; County; Post-office; S. D.; E. D. . . . ., Special Agent or Enumerator.

Period covered by this return, year ending . . . ., 1890.

### 1. Name of corporation, firm, or individual owning plant.

### 2. Date when plant was installed.

### 3. Character of service rendered by plant: (Answer yes or no.)

Incandescent lighting, continuous current system.

Incandescent lighting, alternating converter system.

Incandescent lighting, accumulator system.

Arc lighting: Stationary motors; motor cars.

Mention other special service, if any.

### 4. Cost and present value of plant:

Cost when installed.

Cost of additions.

Total cost.

Depreciation to be deducted.

Present value of plant.

### 5. Power used in operating isolated electric plant:

If dynamos are operated in common with other machinery, give—

Steam: Total horsepower used; Water: Total horsepower used.

Gas engines: Total horsepower used; Wind power: Total horsepower used.

If operated by independent steam power, give—

Number of boilers; type; size; steam pressure—average; maximum; horsepower capacity at average steam pressure; horsepower capacity at maximum steam pressure.

Number of engines; type; size of cylinder; horsepower capacity at average steam pressure; horsepower capacity at maximum steam pressure.

If operated by independent water power, give—

Number of water wheels; type; size; head of water—average; maximum; horsepower capacity at head of water—average; maximum.

5. Power used in operating isolated electric plant—Continued.  
 Independent power, other than steam or water, operating dynamos:  
 Give information corresponding to the above for any independent power used other than steam or water.  
 If power is rented, state—  
 Character of power rented; number of horsepower rented; cost of rented power per horsepower per year.
6. Power operating dynamos in common with other machinery:  
 State character of machinery operated with dynamos.  
 Are dynamos belted to independent or common line shafting?
7. Character of work done by aid of electric light:  
 Name kind of work.  
 State advantages or disadvantages experienced by use of the electric light for work being done.

## DESCRIPTION OF ELECTRIC PLANT.

8. Type of dynamo designated by character of current generated:

Character of current.	Number of dynamos.
Continuous current, constant voltage, variable amperage.....	
Continuous current, variable voltage, constant amperage.....	
Alternating current, constant voltage, variable amperage.....	
Alternating current, variable voltage, constant amperage.....	

NOTE.—If currents of other description are in use, give corresponding information.  
 Give capacity of each dynamo:

Capacity.	Volts.	Amperes.	Watts.	Horsepower required to operate dynamos at full capacity.
One dynamo.....				
One dynamo.....				
One dynamo.....				
One dynamo.....				
One dynamo.....				
One dynamo.....				
One dynamo.....				
One dynamo.....				
One dynamo.....				

9. Scientific electrical instruments used with plant:  
 Give a list showing number and character of all instruments and apparatus in use with plant, except dynamos.
10. Converters:  
 Total number of converters wired.  
 Total number of all lamps (16 C. P. unit) wired to converters.
11. Accumulators:  
 Total number of cells wired.  
 Total number of all lamps (16 C. P. unit) wired to accumulators.
12. Incandescent lamps:  
 Total number wired when plant was installed.  
 Present number wired.  
 Total number required per year for renewals.  
 Total number of arc lamps operated on incandescent lamp circuits.
13. Arc lamps:  
 Single-carbon lamps:  
 Total number wired when plant was installed.  
 Present number wired.  
 Current required for each lamp: Volts; amperes.  
 Double-carbon lamps:  
 Total number wired when plant was installed.  
 Present number wired.  
 Current required for each lamp: Volts; amperes.  
 Total number of incandescent lamps operated on arc-lamp circuits.

# 484 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## 14. Arc-lamp carbons:

Plain carbons—total number consumed per year.

Coppered carbons—total number consumed per year.

## 15. Motors:

Total number; total horsepower wired when plant was installed.

Present number; total horsepower wired.

Give description of work being done by motors, and state the advantages or disadvantages experienced by their use.

## SPECIAL SCHEDULE No. 15c.—COMMERCIAL TELEGRAPH COMPANIES.

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the business covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

Period covered by this return, year ending ...., 1890.

*(Read carefully the explanatory notes, and examine all details of the entire schedule before commencing to fill it out. If in doubt about any point, write for further information.)*

1. Name of corporation, firm, or person.
2. Date of incorporation.
3. Under the laws of what state or states incorporated.
4. Date when company commenced business.
5. Name and business address of all executive officers.

## DESCRIPTION OF PHYSICAL PLANT.

Electrical apparatus—Operating instruments principally in use:

	Total number.
Morse sets .....	
Automatic Wheatstone sets .....	
Duplex-instrument sets .....	
Phonoplex sets .....	
Printing-instrument sets .....	
Quadruplex-instrument sets .....	
Synchronous sets .....	
Quotation transmitters .....	
Quotation recorders .....	
	Total mileage of wires operated.
Morse system .....	
Wheatstone system .....	
Duplex system .....	
Phonoplex system .....	
Printing system .....	
Quadruplex system .....	
Synchronous system .....	

Electrical apparatus—Current generators—Primary cells:

	Total number.
Gravity cells No. 1.....	
Gravity cells No. 2.....	
Carbon cells No. 1.....	
Carbon cells No. 2.....	
Total number of primary cells.....	

**Electrical apparatus—Current generators—Primary cells—Continued.****How operated:**

Smallest number of cells connected for one battery.

Electrical connection, series or multiple.

Capacity of current generated: Volts; amperes.

Largest number of cells connected for one battery.

Electrical connection, series or multiple.

Capacity of current generated: Volts; amperes.

**Description of cells:**

Size; material.

Character of electrolyte; quantity per cell.

Sulphate of copper, quantity required for primary charge.

Sulphate of copper, quantity required for monthly maintenance.

Give corresponding description for other cells in use.

**Electrical apparatus—Current generators—Dynamos:**

Type of dynamo designated by character of current generated:

Character of current.	Number of dynamos.
Continuous current, constant voltage, variable amperage.....	
Continuous current, variable voltage, constant amperage.....	
Alternating current, constant voltage, variable amperage.....	
Alternating current, variable voltage, constant amperage.....	

**NOTE.**—If currents of other description are in use, give corresponding information.

Type of dynamo designated by character of winding and commutator segments:

Number of dynamos of each type.	Manner of connecting coils electrically.	How excited.	Number of commutator segments.
(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

**NOTE.**—If dynamos are in use that can not be properly classed under the above descriptive headings, give corresponding information.

**Electric lighting:**

Give number of offices lighted by electricity.

Give number of isolated lighting plants in use.

Capacity of dynamos in use (describe winding, as series, shunt, compound, or special):

How wound.	Number of dynamos.	Capacity of each in volts.	Capacity of each in amperes.	Capacity of each in watts.
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

Capacity of motors in use (describe winding, as series, shunt, compound, or special):

How wound.	Number of motors.	Capacity of each in volts.	Capacity of each in amperes.	Capacity of each in watts.
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

# 486 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## Electrical apparatus—Current generators—Dynamos—Continued.

Currents generated by dynamos operated in series or multiple:

Number of dynamos connected.

Winding of dynamos connected.

How connected electrically, series or multiple.

Character of current generated.

Capacity of current generated: Volts; amperes; watts.

Are dynamos so connected and operated regularly, or in case of emergency only?

Give greatest capacity of current ever generated for practical use: Volts; amperes; watts.

## SCIENTIFIC ELECTRICAL INSTRUMENTS USED IN STATION.

Give a list showing number and character of all instruments and apparatus in use in the station, except dynamos.

## LINE CONSTRUCTION.

Miles of support and number of wires supported:

	Kind of supports.	Miles of each support.	Number of wires supported.
Owned .....	Poles .....		
	House tops and other supports except poles.....		
Leased .....	Poles .....		
	House tops and other supports except poles.....		
Controlled.....	Poles .....		
	House tops and other supports except poles.....		

Definition of terms:

"Leased lines."

"Controlled lines."

Give miles of single wire of each kind in use (cables are not to be included in this list):

Kind.	Miles of single wire of each kind.	How operated.	Miles.
Plain iron .....		Commercial .....	
Galvanized iron .....		Joint railroad .....	
Covered .....		Exclusive railroad .....	
Copper .....			
Steel and compound .....			
Total .....			

## Cables:

Underground: Feet of cable; feet of conductor.

Submarine: Feet of cable; feet of conductor.

Aerial: Feet of cable; feet of conductor.

Number and classification of offices:

	Total number.
Independent commercial offices.....	
Joint commercial and railroad offices.....	
Exclusive railroad offices .....	
Commission offices .....	
First-class offices originating and delivering over 1,000 messages per month.....	
Second-class offices originating and delivering over 200 and less than 1,000 messages per month.....	
Third-class offices originating and delivering less than 200 messages per month.....	
Service subdivisions:	
Districts .....	
Divisions .....	

## Number and classification of offices—Continued.

Give number of offices, number of employees, mileage of lines, and value of real estate in each state and territory:

State.	Number of offices.	Number of employees.	Mileage of poles.			Mileage of wires.			Value.		
			Owned.	Leased.	Controlled.	Owned.	Leased.	Controlled.	Land.	Buildings.	Total.
(a)											

a The name of each state and territory is printed in schedule.

Give greatest distance operated in direct circuit without repeaters.

Give greatest distance operated in direct circuit with repeaters.

State number of repeaters in such circuit.

Give names of offices nearest boundary at which connection is made with lines extending into foreign countries, and the names of such countries and connecting lines:

Place.	Name of connecting line.	Name of country connected with.
(a)	(a)	(a)

a Several blank lines are printed in schedule.

## TARIFF RATE OF CHARGES.

## Ordinary messages:

Number of free words allowed in address.

Number of free words allowed in date.

Number of free words allowed in signature.

Largest number of letters allowed in a word at one-word rate.

## Tariff rates, ordinary messages:

First 10 words, full-rate messages: Lowest; highest.

Extra words, full-rate messages: Lowest; highest.

First 10 words, night-rate messages: Lowest; highest.

Extra words, night-rate messages: Lowest; highest.

Rate within state limits, full-rate messages.

Rate within state limits, night-rate messages.

Rate within square limits, full-rate messages.

Rate within square limits, night-rate messages.

Average area of squares.

## Money transfer messages:

Give premium charged for transferring money.

Give limits of free delivery in towns of 5,000 inhabitants and under.

Give limits of free delivery in towns of over 5,000 inhabitants.

## ANALYSIS OF INCOME.

Give total number of messages of each class, as stated below, sent during the fiscal year, and the gross amount of income from the same:

Full-rate messages sent: Total number; total income.

(This item should include all messages not otherwise classified.)

Night-rate messages sent: Total number; total income.

Money-transfer messages sent: Total number; total income.

Total amount of money transferred.

Premiums on money transferred—total annual amount.

Press messages sent: Total number; total income.

Special press messages sent: Total number; total income.

Commercial news messages sent: Total number; total income.

United States Government messages sent: Total number; total income.

Signal-service messages sent: Total number; total income.

Half-rate frank and free messages sent:

NOTE.—Enter under this heading all messages checked by the receiving operator as "half-rate frank" or "free," and all other messages not collected

# 488 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

for individually by the receiving or delivering operator, payment for which is made in whole or in part by rights of way, services, labor, transportation, supplies, office privileges, etc.

To what account charged.	Number of messages charged.	Total income from messages charged.
(a)	(a)	(a)

a Several blank lines are printed in schedule.

Complimentary messages sent:

NOTE.—Enter under this heading all messages sent without compensation.

Total number.

Ocean cable messages sent to and received from foreign countries: Total number; total income.

Foreign land lines, messages sent to and received from foreign countries: Total number; total income.

Times service: Total income.

Private wires rented for press: Total mileage of single wire; total income.

Private wires rented for commercial use: Total mileage of single wire; total income.

Deductions from income for moneys received as agent:

Paid to other lines.

Paid for special delivery.

Other line tolls for forwarded messages.

Refunded and uncollectible.

Railroad companies' portion of receipts.

Telephone charges on business received through telephone.

Total deductions.

Total gross receipts:

Full-rate and other messages, except those specified below.

Night-rate messages.

Press messages of all classes.

Money transfer messages, tolls and premiums.

Private wires rented for press and commercial use.

Check errors.

Rent from buildings, offices, and privileges sublet.

Stock and commercial news reports.

Election returns.

Interest.

Dividends on stocks of other companies.

Miscellaneous and unenumerated sources.

Total.

## ANALYSIS OF EXPENSES.

Labor and wages:

NOTE.—Persons employed on commission and their earnings should be separately reported below. Wages paid should include board and rent when furnished as part compensation.

Classes.	Average number employed during the year.	Total amount paid in wages during the year.
Officers and directors .....		
General superintendents .....		
Division superintendents .....		
Electricians and experts .....		
Inspectors and engineers .....		
Managers and operators:		
Males .....		
Females .....		
Clerks and office boys:		
Males above 16 years .....		
Females above 15 years .....		
Children .....		
Messengers:		
Males above 16 years .....		
Children .....		

Labor and wages—Continued.

Classes.	Average number employed during the year.	Total amount paid in wages during the year.
Foremen and repair men .....		
Battery men .....		
Other employees:		
Males above 16 years .....		
Females above 15 years .....		
Children .....		
Commission work:		
Males .....		
Females .....		
Total .....		

Monthly rate of wages paid, and average number of hands employed at each rate (not including those employed on commission work):

Rates per month.	Males above 16 years.	Females above 15 years.	Children.
Under \$20 .....			
\$20 and over, but under \$25 .....			
\$25 and over, but under \$30 .....			
\$30 and over, but under \$35 .....			
\$35 and over, but under \$40 .....			
\$40 and over, but under \$45 .....			
\$45 and over, but under \$50 .....			
\$50 and over, but under \$55 .....			
\$55 and over, but under \$75 .....			
\$75 and over, but under \$85 .....			
\$85 and over, but under \$100 .....			
\$100 and over, but under \$125 .....			
\$125 and over .....			

Average number of hours in the ordinary day of labor:

Managers and operators, hours per day.  
 Clerks and office boys, hours per day.  
 Foremen and repair men, hours per day.  
 Messengers, hours per day.  
 Battery men, hours per day.  
 Other employees, hours per day.

Cost of maintenance of lines and offices:

District superintendent's salary and expenses.  
 Superintendents of construction, salary and expenses.  
 Managers, operators, clerks, office boys, messengers, and battery men.  
 Reconstruction, freight, and all other expenses.  
 Repairs, labor, freight, and all other expenses.  
 Other employees.  
 Total.

Miscellaneous office expenses:

Main and local battery material.  
 Stationery.  
 Office furniture, fixtures and repairs on same.  
 Machinery and instruments, and repairs on same.  
 Rent, fuel, and light.  
 Miscellaneous supplies and expenses.  
 Cost of material furnished for ordinary repairs.  
 Cost of material furnished for reconstruction.  
 Total.

Executive and general office expenses:

Rent.  
 Salaries.  
 Counsel.  
 Sundries.  
 Total.

## 490 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### Expenses for rentals and sundry purposes:

- Rentals for poles.
- Rentals for house-top and other privileges for supports.
- Rentals for conduits and underground privileges.
- Rentals for steam-railroad privileges, including value of messages transmitted for railroad and other companies in lieu of rents, services, transportation and supplies, fuel, lights, etc.
- Rentals for operating offices.
- Rentals paid for all lines reported as "leased" or "controlled."
- Total rentals.
- Sundries, losses on uncollected messages, and payments made for delays, errors, etc.
- Sundries, value of free messages not otherwise enumerated, estimated at rate of charge for full-rate message.

### General fixed charges:

- Insurance, total amount of annual premium.
- Interest at     per cent on total investment, annual amount.
- State and all other taxes in all states, annual amount.
- Patent licenses and royalties, annual amount.
- Total fixed charges.

Depreciation on—	Rate per cent.	Annual amount.
Buildings .....		
Office fixtures and furniture .....		
Line construction .....		
Machinery and instruments .....		
Tools and implements .....		
Batteries .....		
Total depreciation .....		

### Total gross disbursements:

- Paid other lines.
- Refunded and uncollected.
- Paid railroad companies.
- Salaries.
- Messengers.
- Printing and stationery.
- Rentals.
- Light and fuel.
- Office furniture and repairs.
- Instruments.
- Batteries.
- Claims for damages and legal expenses.
- Taxes.
- Lease of land lines.
- Lease of ocean cables.
- Ocean cable repairs.
- Line repairs, superintendence and reconstruction.
- Telephone companies, exchange commissions.
- Obtaining stock and commercial news reports.
- Interest on loans.
- Depreciation.
- Miscellaneous and unenumerated sundries.
- Total.

### INVESTMENTS.

NOTE.—The value of real estate, physical plant, securities, patents, franchises, and sundry items should be estimated at what their cost would be in 1890, if then to be bought, erected, or obtained, with such allowance for depreciation as may be suitable in consideration of the length of time the property has been in use. The value of securities owned should be estimated at their average market price during the period covered by this return.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 491

Total value of real estate.  
 Total value of physical plant.  
 Total value of securities.  
 Total value of patents, franchises, and rights of way.  
 Total value of sundry items.  
 Total.

Investments, how held:

NOTE.—In case of corporations having a definite capital stock the sum to be reported is the amount of such capital actually paid in plus the amount credited as stock or scrip dividends, divided surplus, profits, or interest, and not the present market value of the stock.

Capital stock paid in or issued for value.  
 Surplus fund or undivided profits.  
 Bonds payable.  
 Bills and accounts payable and all other credits, exclusive of bonds.  
 Total.

## CLASSIFICATION OF SHAREHOLDERS.

Males (number).  
 Females (number).  
 Firms (number).  
 Executors, trustees, etc. (number).  
 Banks, insurance and trust companies (number).  
 Total.

## SPECIAL SCHEDULE No. 15c.—COMMERCIAL TELEGRAPH COMPANIES (SUPPLEMENT No. 1).

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.

### UNDERGROUND CONDUITS AND SERVICE.

NOTE.—The information provided for by this form is to be given for each city in which the company has an underground service in use.

Name of company.  
 Name of city; state.

### UNDERGROUND CONDUITS.

[Inquiries numbered 79 and 80 on special schedule No. 15 are common to this schedule and are not here reproduced.]

## SPECIAL SCHEDULE No. 15c.—COMMERCIAL TELEGRAPH COMPANIES.—(SUPPLEMENT No. 2).

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.

### REPORT OF RELAYED OR REPEATED MESSAGES.

NOTE.—This report is to be filled for every office designated.

Name of company.  
 Name of office; state.

Report of messages *relayed or repeated* at this office during the day of 24 hours, commencing at 12 o'clock midnight , to 12 o'clock midnight , 189 .

Instructions for filling this blank:

1. Enter but one message on a line.
2. Count money transfer messages twice. Count special press and commercial news messages one message for 30 words.
3. Messages received from points outside the United States should not be entered on this report unless they are relayed or repeated from an office within the United States.

Messages received from—		Messages forwarded to—	
Town.	State.	Town.	State.
(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

# 492 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## SPECIAL SCHEDULE No. 15c.—COMMERCIAL TELEGRAPH COMPANIES.—(SUPPLEMENT No. 3).

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.

### REPORT OF MESSAGES TO AND FROM POINTS OUTSIDE THE UNITED STATES.

NOTE.—This report is to be filled for every office designated.

Name of company.

Name of office; state.

Report of messages *sent to or received from points outside the United States* by this office during the day of 24 hours, commencing at 12 o'clock midnight , to 12 o'clock midnight , 189 .

Instructions for filling this blank:

1. Enter but one message on a line, counting each message, *as written*, one message.
2. Enter all messages of the character named *sent to or received from points outside the United States*, originating or delivered at this office, without regard to whether they are "paid" or "collect."
3. Enter only the telegraph tolls on the message, as shown in the check of the message.
4. Messages handled in *branch offices* in any town or city will be included in the report of the main office for that place.
5. Make no entry in "distance" column.

Place to or from—		Character of message.			Number of words.			Tolls.	Distance.
Town (specify to or from).	Country.	Full rate.	Night rate.	Money transfer.	In address, not paid for.	In body, paid for.	In signature, not paid for.	Full amount, whether paid or collect: "this line" or "other line."	Computations for this column are to be made and filled in at the census office.
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

## SPECIAL SCHEDULE No. 15c.—COMMERCIAL TELEGRAPH COMPANIES (SUPPLEMENT No. 4).

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.

### REPORT OF ORIGINAL MESSAGES TO POINTS WITHIN THE UNITED STATES.

NOTE.—This report is to be filled for every office designated.

Name of company.

Name of office; state.

Report of messages *originating* at this office during the period commencing at 12 o'clock midnight , to 12 o'clock midnight , 189 .

Instructions for filling this blank:

1. Enter but one message on a line, counting each message, *as written*, one message.
2. Enter all messages of the character named *originating* at the office without regard to whether they are "paid" or "collect."
3. Enter only the telegraph tolls on message, as shown in the check of the message.
4. Messages *originating* in *branch offices* in any town or city will be included in the report of the main office for that place.
5. Enter for the tolls of "half-rate" messages the amount paid by the sender only.

# REPORT AND GROWTH OF THE UNITED STATES CENSUS

Instructions for filling this blank—Continued.  
4. Make in entry in "Distance" column.

Page No.—		Character of message.				Number
Year.	Month.	Full name.	Short name.	Initials.	Address.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)

a Several blank lines at:

## SPECIAL SCHEDULE No. 11c.—COMMERCIAL (SUPPLEMENT)

State; County; Post-office; S. D.; E. D.

Give list of offices at which messages  
persons for delivery, by telegraph,  
to which such transfers are made:

Name of office.
(a)

a Several pages.

List of cities in which are located  
of branch offices of each of:

Name of city and state.
(a)

a Several

## SPECIAL SCHEDULE No. 11d.

State; County; Post-office

The period to be covered  
and ending May 31.  
If different period, the  
the census year.

Period covered by

(Read carefully the  
commencing to

[Inquiries number  
are not here reported]

Instructions for

INSTRUCTIONS.

Land circuits.		Maritime circuits.	
of	Total	Total	Total
or	mileage.	number of	mileage
		circuits	

at:

Files of each.	Number of wires supported.	Number of cables supported.

# 494 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

6. If company is a licensee, describe territory covered by its license:

County.	State.
(a)	(a)

a Several blank lines are printed in schedule.

7. Has this company acquired the patents, license, franchise, or plant of any other company, firm, or person? If so, give full name and address of such company, firm, or person.
8. Does this company own an interest in the business of any other company, firm, or person? If so, state character of business done, and give full name and address of such company, firm, or person:  
 Character of business.  
 Name of company, firm, or person.  
 Address of company, firm, or person.
9. Name of company from which this company obtains its license:  
 Name of company.  
 Address of company.  
 Name of managing officer.  
 Address of managing officer.
10. Does this company license subcompanies to operate any portion of its territory? If so, give name and address of such companies, firms, or persons, and territory included in license for each:  
 Company, firm, or person.  
 Address.  
 Territory licensed.  
 (Report for each one.)
11. Does any other company, as such, own an interest in this company? If so, state what proportion such interest is of the whole amount of stock issued, for what consideration the interest was given, and the full name and address of the company owning such interest:  
 Per cent of stock issued.  
 Consideration for interest.  
 Name of company owning interest.  
 Address of company.
12. Does this company manufacture telephone apparatus? If so, what kinds?
13. Is this company interested in any manufacturing company? If so, give name and address of such company:  
 Name of manufacturing company.  
 Address of manufacturing company.

## DESCRIPTION OF PHYSICAL PLANT.

Electrical apparatus—Operating instruments principally in use:

Signaling apparatus.				Telephone apparatus.			
Kind of transmitting apparatus.	Number of each kind.	Kind of receiving apparatus.	Number of each kind.	Kind of transmitting apparatus.	Number of each kind.	Kind of receiving apparatus.	Number of each kind.
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

Give list below of scientific instruments in use, specifying kind and number:

Kind of scientific instruments.	Number of each.
(a)	(a)

a Several blank lines are printed in schedule.

## Batteries in use:

Names of batteries.	Number of cells of each kind.
Le Clanche batteries .....	
Bluestone or gravity batteries .....	
Dry batteries .....	
Carbon batteries .....	
Accumulator or storage batteries .....	
Other varieties of batteries: [5 blank lines.]	

## Generators—dynamos:

Hand.			Power.			
Kind.	Number.	Signaling capacity, in miles.	Kind.	How operated.	Number of each kind.	Signaling capacity, in miles.
(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

## EXCHANGE SYSTEM—LINE CONSTRUCTION.

Character of use.	Grounded circuits.		Metallic circuits.	
	Total number of circuits.	Total mileage.	Total number of circuits.	Total mileage.
Subscribers—one on circuit .....				
Subscribers—two or more on circuit .....				
Toll lines .....				
[4 blank lines.]				

## Miles of supports and number of wires supported:

Kind of support.	Miles of each.	Number of wires supported.	Number of cables supported.
Poles .....			
House tops and other supports, except poles .....			
Underground .....			
Submarine .....			
[10 blank lines.]			

# 496 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Miles of single wire of each kind in use:  
(Cables are not to be included in this list.)

Kind.	Miles of single wire of each kind.
Galvanized iron.....	
Galvanized steel.....	
Bare copper .....	
Insulated copper.....	
Total.....	

Miles of cable and miles of conductors:

Kind.	Miles of cable.	Total miles of conductors.
Installed:		
Aerial.....		
Underground.....		
Submarine.....		
In use:		
Aerial.....		
Underground.....		
Submarine.....		

Circuits:

Mileage of grounded circuits.	Current.			Mileage of metallic circuits.	Current.		
	Voltage.	Amperage.	Alternating or continuous.		Voltage.	Amperage.	Alternating or continuous.
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

Exchange system, extra-territorial or long-distance line construction:

Character of use.	Grounded circuits.		Metallic circuits.	
	Total number of circuits.	Total mileage.	Total number of circuits.	Total mileage.
Subscribers—one on circuit .....				
Subscribers—two or more on circuit.....				
Toll lines.....				
[4 blank lines.]				

Miles of supports and number of wires supported:

Kind of support.	Miles of each.	Number of wires supported.	Number of cables supported.
Poles.....			
House tops and other supports, except poles.....			
Underground.....			
Submarine.....			
[10 blank lines.]			

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 497

Miles of single wire of each kind in use:  
(Cables are not to be included in this list.)

Kind.	Miles of single wire of each kind.
Galvanized iron .....	
Galvanized steel .....	
Bare copper .....	
Insulated copper .....	
Total .....	

Miles of cable and miles of conductors:

Kind.	Miles of cable.	Total miles of conductors.
Installed:		
Aerial .....		
Underground .....		
Submarine .....		
In use:		
Aerial .....		
Underground .....		
Submarine .....		

Circuits:

Mileage of grounded circuits.	Current.			Mileage of metallic circuits.	Current.		
	Voltage.	Amperage.	Alternating or continuous.		Voltage.	Amperage.	Alternating or continuous.
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

## EXCHANGES.

Names of principal and branch exchanges.	Date when established.	Switchboard.	
		Kind.	Capacity in circuits.
(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

## DELIVERY.

Give list of offices or exchanges at which conversations are written out for delivery, or to be transferred for transmission by telephone, and the name of the company, firm, or person to whom such transfers are made:

Name or office.	Town.	State.	To whom transferred for delivery by telephone—name of company, firm, or person.
(a)	(a)	(a)	(a)

a Two pages of blank lines are printed in schedule.

## 498 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Give list of offices or exchanges at which conversations are written out for delivery, or to be transferred for transmission by telegraph, and the name of the company, firm, or person to whom such transfers are made:

Name or office.	Town.	State.	To whom transferred for delivery by telegraph—name of company, firm, or person.
(a)	(a)	(a)	(a)

a One page of blank lines is printed in schedule.

Give number of offices, number of employees, mileage of lines, and value of real estate in each state and territory:

State.	Number of offices or exchanges.	Number of employees.	Mileage of poles—			Mileage of wires—			Value—		Total value.
			Owned.	Leased.	Controlled.	Owned.	Leased.	Controlled.	Land.	Buildings and switch-boards.	
(a)											

a The name of each state and territory is printed in schedule.

Give names of offices nearest boundary at which connection is made with lines extending into foreign countries, and the names of such countries and connecting lines:

Place.	Name of connecting line.	Name of country connected with.
(a)	(a)	(a)

a Several blank lines are printed in schedule.

### ANALYSIS OF INCOME.

Give total of each class of service as stated below handled during the fiscal year, and the gross amount of income from the same:

Exchange subscribers: Total number connections; total income.

Toll stations: Total number connections; total income.

Extra-territorial service station: Total number connections; total income.

Long-distance service: Total number connections; total income.

Rent of instruments and lines not connected with exchange: Total number; total income.

Instruments leased on royalty to subcompanies: Total number; total income.

Commissions on telegraph messages; number of offices receiving: Total income.

Rents from buildings, offices, and privileges sublet: Total income.

Interest received: Total income.

Dividends received on stocks of other companies: Total income.

Income from miscellaneous sources: Total income.

Total gross annual income.

Deductions from income for moneys received as agent:

Other companies' portion of receipts:

(a) Commission on telegraph messages.

(b) Extra-territorial service.

(c) Long-distance service.

Total deductions.

Gross income, less deductions.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 499

## ANALYSIS OF EXPENSES.

### Labor and wages:

NOTE.—Persons employed on commission and their earnings should be separately reported below. Wages paid should include board and rent when furnished as part compensation.

Classes.	Average number employed during the year.	Total amount paid in wages during the year.
Officers and directors.....		
General superintendents.....		
Division superintendents.....		
Electricians and experts.....		
Inspectors and engineers.....		
Managers and day operators:		
Males.....		
Females.....		
Managers and night operators:		
Males.....		
Females.....		
Clerks and office boys:		
Males above 16 years.....		
Females above 15 years.....		
Children.....		
Messengers:		
Males above 16 years.....		
Children.....		
Foremen and linemen.....		
Other employees:		
Males above 16 years.....		
Females above 15 years.....		
Children.....		
Commission work:		
Males.....		
Females.....		
Total.....		

Monthly rate of wages paid, and average number of hands employed at each rate (not including those employed on commission work):

Rates per month.	Males above 16 years.	Females above 15 years.	Children.
Under \$20.....			
\$20 and over, but under \$25.....			
\$25 and over, but under \$30.....			
\$30 and over, but under \$35.....			
\$35 and over, but under \$40.....			
\$40 and over, but under \$45.....			
\$45 and over, but under \$50.....			
\$50 and over, but under \$65.....			
\$65 and over, but under \$75.....			
\$75 and over, but under \$85.....			
\$85 and over, but under \$100.....			
\$100 and over, but under \$125.....			
\$125 and over.....			

### Average number of hours in the ordinary day of labor:

Managers and operators, hours per day.  
 Clerks and office boys, hours per day.  
 Foremen and linemen, hours per day.  
 Messengers, hours per day.  
 Batterymen, hours per day.  
 Other employees, hours per day.

### Cost of maintenance of lines:

Superintendents of construction and repairs, salary and expenses.  
 Repairs, labor, freight, and all other expenses.  
 Linemen and other employees.  
 Cost of material furnished for ordinary repairs.  
 Cost of material furnished for reconstruction.  
 Total.

## 500 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### Office expenses:

Managers, operators, clerks, office boys, messengers.  
 Printing and stationery.  
 Office furniture, fixtures, and repairs on same.  
 Rent, fuel, and light.  
 Miscellaneous supplies and expenses.

#### Total.

### Executive and general office expenses:

Rent.  
 Salaries.  
 Claims for damages and legal expenses.  
 Sundries.

#### Total.

### Expenses for rentals and sundry purposes:

Rentals for poles.  
 Rentals for house top and other privileges for supports.  
 Rentals for conduits and underground privileges.  
 Rentals for operating offices.

#### Total rentals.

Sundries, losses on uncollected tolls and payments made for delays, errors, etc.  
 Value of free telephone service not otherwise enumerated, estimated at rate of regular charge for such service.

### General fixed charges:

Insurance, total amount of annual premium.  
 Interest at      per cent on total investment, annual amount.  
 State and all other taxes in all states, annual amount.

#### Patent licenses and royalties:

On instruments, each; annual amount.  
 On switchboards, rate; annual amount.  
 Other charges; annual amount.

#### Total fixed charges.

Depreciation on—	Rate per cent.	Annual amount.
Buildings.....		
Office fixtures and furniture.....		
Line construction.....		
Machinery and instruments.....		
Tools and implements.....		
Batteries.....		
Total depreciation .....		

### TOTAL GROSS DISBURSEMENTS.

Labor and wages.  
 Maintenance of lines.  
 Office expenses.  
 Executive and general office expenses.  
 Rentals.  
 General fixed charges.  
 Miscellaneous and unenumerated sundries.  
 Total.

### INVESTMENTS.

NOTE.—The value of real estate, physical plant, securities, patents, franchises, and sundry items should be estimated at what their cost would be in 1890, if then to be bought, erected, or obtained, with such allowance for depreciation as may be suitable in consideration of the length of time the property has been in use. The value of securities owned should be estimated at their average market price during the period covered by this return.

#### Total value of real estate:

Land.  
 Buildings.

#### Total value of physical plant.

#### Total value of securities.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 501

Total value of patents, franchises, and rights of way.

Total value of sundry items.

Total.

Investments—How held:

NOTE.—In case of corporations having a definite capital stock, the sum to be reported is the amount of such capital actually paid in plus the amount credited as stock or script dividends, divided surplus, profits or interest, and not the present market value of the stock.

Capital stock paid in or issued for value.

Surplus fund or undivided profits.

Bonds payable.

Bills and accounts payable and all other credits, exclusive of bonds.

Total.

## CLASSIFICATION OF SHAREHOLDERS.

Males (number).

Females (number).

Firms (number).

Other telephone companies (number).

Executors, trustees, etc. (number).

Banks, insurance and trust companies (number).

Total.

## SPECIAL SCHEDULE No. 15d—COMMERCIAL TELEPHONE COMPANIES (EXCHANGE SUPPLEMENT No. 1).

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.

### TARIFF RATE OF CHARGES.

Yearly rates.	Business.	Residence.
Grounded circuits, special line .....		
Grounded circuits, two on line .....		
Metallic circuits, special line .....		
Metallic circuits, two on line .....		
Metallic circuits, long-distance transmitter, special line .....		
Metallic circuits, long-distance transmitter, two on line .....		

### RATES OF CHARGES AT TOLL STATIONS—DISTANCE AND TIME.

Distance.	Charge first five minutes.	Charge each additional five minutes.
Under 5 miles .....		
Over 5 miles and under 10 miles .....		
Over 10 miles and under 20 miles .....		
Over 20 miles and under 30 miles .....		
Over 30 miles and under 40 miles .....		
Over 40 miles and under 50 miles .....		
Over 50 miles and under 75 miles .....		
Over 75 miles and under 100 miles .....		
Over 100 miles and under 150 miles .....		
Over 150 miles and under 200 miles .....		
Over 200 miles and under 300 miles .....		
Over 300 miles and under 400 miles .....		
Over 400 miles and under 500 miles .....		
Over 500 miles and under 1,000 miles .....		
Over 1,000 miles .....		

### PRIVATE INSTRUMENTS AND WIRES.

Rate of charges for private instruments and wires not connected with exchanges:

Basis of charge; rate of charge.

### DESCRIPTION OF SWITCH BOARD.

Describe fully mechanical and electrical construction, magneto bells, batteries, and other details contributory to operations; service capacity, number of operators required, space occupied, quantity of principal material used in construction, cost of construction, and annual cost of royalty.

# 502 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## EXCHANGE SERVICE.

Number of exchange subscribers' stations:

Residence.

Office.

Total.

Number of toll stations.

Number of branch offices.

Number of free stations.

Total number of stations.

Number of sets of private line instruments in use not connected with the exchange.

Number of trunk lines from central to branch offices.

Largest number of operators required to manage business at one time.

## WORK PERFORMED BY OPERATORS (DAY OF TWENTY-FOUR HOURS).

Average number of subscribers' wires handled by each subscriber operator.

Average number of subscribers' stations handled by each subscriber operator.

Average daily number of connections made by each subscriber operator.

Average daily number of connections made per subscriber.

## SERVICE RECORD—CONNECTIONS.

Character of service.	Number of subscribers or stations.	Number of connections per day of 24 hours.	Number of connections per year.	Number of trunk toll line connections per year.
Exchanges.....				
Branch offices.....				
Toll stations.....				
Extra-territorial stations.....				
Long-distance stations.....				

## SERVICE RECORD—CALLS.

Character of service.	Highest number of calls per day of 24 hours.	Number of calls from 8 a. m. to 6 p. m.	Highest number of calls in one hour.	Hour of day averaging highest number of calls.	Average number of calls per day of 24 hours.
Exchanges.....					
Branch offices.....					
Toll stations.....					
Extra-territorial stations.....					
Long-distance stations.....					
[11 blank lines.]					

## SPECIAL SCHEDULE No. 15d—COMMERCIAL TELEPHONE COMPANIES

(UNDERGROUND SERVICE SUPPLEMENT No. 2).

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.

## UNDERGROUND CONDUITS AND SERVICE.

NOTE.—The information provided for by this form is to be given for each city in which the company has an underground service in use.

Name of company.

Name of city; state.

[Inquiries numbered 79 and 80 in special schedule No. 15 are common to this schedule and are not here reproduced.]

## UNDERGROUND CONDUCTORS.

Miles of cable.  
 Total miles of conductors in cables.  
 Average number of conductors in cables.  
 Miles of conductor, single wire, grounded circuit.  
 Miles of conductor, single wire, metallic circuit.  
 Miles of conductor, wires twisted in pairs.  
 Miles of conductor, wires twisted in pairs, twin wire grounded.  
 Miles of conductor, wires twisted in pairs, metallic circuit.  
 Length of longest underground conductor in use.  
 Number of toll lines underground, grounded circuit.  
 Number of toll lines underground, metallic circuit.  
 Number of subscribers' lines underground, grounded circuit.  
 Number of subscribers' lines underground, metallic circuit.  
 Method of distribution from conduit to buildings.  
 Is more than one service connection made for each block?  
 Give number of wires per duct for each service connection.

SPECIAL SCHEDULE No. 15d—COMMERCIAL TELEPHONE COMPANIES  
 (CONVERSATIONS SUPPLEMENT No. 3).

State; County; Post-office; S. D.; E. D. . . . ., Special Agent or Enumerator.

## REPORT OF CONVERSATIONS BETWEEN POINTS WITHIN THE UNITED STATES.

NOTE.—This report is to be filled for every office designated.

Name of company.

Name of office; state.

Report of conversations at this office during the period commencing at 12 o'clock midnight.

Instructions for filling this blank:

1. Enter the total number of *conversations by subscribers' calls* for the period in the aggregate under the proper headings.
2. Enter *but one* toll conversation on a line, counting *each toll* as one conversation. Use as many pages as may be necessary. Do not interline.
3. Enter only the tolls charged for transmitting the conversation, without regard to whether they are "paid" or "collect." Omit all other charges.
4. Make entry in "distance" column showing line wire distance between sending and receiving stations for extra-territorial or long-distance calls.

From to—		Character of conversations.					
		Subscribers' calls.		Toll calls.			
Place.	State.	Residence.	Office.	Toll lines—amount toll charged.	Extra-territorial.	Long distance.	Distance between sending and receiving stations.
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

SPECIAL SCHEDULE No. 15d.—COMMERCIAL TELEPHONE COMPANIES. (FOREIGN CONVERSATIONS SUPPLEMENT No. 4.)

State; County; Post-office; S. D.; E. D. . . . ., Special Agent or Enumerator.

## REPORT OF CONVERSATIONS TO AND FROM POINTS OUTSIDE THE UNITED STATES.

NOTE.—This report is to be filled for every exchange designated.

Name of company.

Name of office; state.

Report of conversations to or received from points outside the United States by this exchange during the period commencing at 12 o'clock midnight.

# 504 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Instructions for filling this blank:

1. Enter the total number of *conversations by subscribers' calls* for the period in the aggregate under the proper headings.
2. Enter *but one* toll conversation on a line, counting *each toll* as one conversation. Use as many pages as may be necessary. Do not interline.
3. Enter only the tolls charged for transmitting the conversation, without regard to whether they are "paid" or "collect." Omit all other charges.
4. Make entry in "distance" column showing line wire distance between sending and receiving stations for extra-territorial or long-distance calls.

From to—		Character of conversations.					
		Subscribers' calls.		Toll calls.			
Place.	County.	Residence.	Office.	Toll lines—amount toll charged.	Extra-territorial.	Long-distance.	Distance between sending and receiving stations.
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

## SPECIAL SCHEDULE No. 15c.—STEAMBOAT ELECTRIC LIGHT AND POWER PLANTS.

State; County; Post-office; S. D.; E. D. . . . ., Special Agent or Enumerator.

Date of return.

Period covered by return.

Name of company, firm, or person owning steamboat.

Name of steamboat.

Port of entry.

Date when steamboat was built.

Construction of steamboat—iron, steel, composite, or wood.

Tonnage.

Nature of traffic.

Date when electric plant was installed.

Is the plant arc or incandescent, or partly of each?

Cost of plant when installed, including fixtures, wiring, dynamos, engines, foundations, piping, etc.

Cost of additions made to plant.

Total cost of plant.

Depreciation to be deducted, rate per cent per year; total.

Present value of plant.

In what part of the steamboat is the electric light used (write "yes" or "no" in blank spaces):

Cargo; engine and fire rooms; passengers' quarters; crew's quarters; running lights; searchlights.

### POWER USED IN OPERATING ELECTRIC PLANT.

Number of engines; type; size of cylinder; revolutions per minute.

Average steam pressure at engine.

Horsepower capacity at average steam pressure.

Method of connection between engine and dynamo (belt, friction pulleys, or direct coupled).

### DESCRIPTION OF ELECTRIC PLANT.

Type of dynamo designated by character of current generated:

Character of current.	Number of dynamos.
Incandescent-light dynamos.....	
Arc-light dynamos.....	

Describe floor space occupied by the plant, dynamos, and special engines.

Give capacity of each dynamo:

Capacity.	Volts.	Amperes.	Watts.	Horsepower required to operate dynamos at full capacity.
One dynamo .....				
One dynamo .....				
One dynamo .....				

Scientific electrical instruments used with plant:

Give a list showing the number and character of all instruments and apparatus in use with plant, except dynamos.

Voltmeters, No.; ammeters, No.; ground detectors, No.; mention any other instruments used with the plant.

Accumulators:

Type; number of cells in battery.

Total number of cells wired; capacity in lamp hours.

Total number of all lamps (16 C. P. unit) wired to accumulators.

Incandescent lamps:

Total number wired when plant was installed.

Present number wired.

Average hours per night that lights are fully used.

Total number required per year for renewals.

Voltage of lamps.

Total number of arc lamps operated on incandescent-lamp circuits.

Arc lamps:

Single-carbon lamps:

Total number wired when plant was installed.

Present number wired.

Current required for each lamp: Volts; amperes.

Double-carbon lamps:

Total number wired when plant was installed.

Present number wired.

Current required for each lamp: Volts; amperes.

Total number of incandescent lamps operated on arc-lamp circuits.

Arc-lamp carbons:

Plain carbons—total number consumed per year.

Coppered carbons—total number consumed per year.

Searchlights:

Number of searchlights installed.

Type of searchlight.

Number of volts required for each light; number of amperes required for each light.

Rated lighting power (measured in direction of rays).

Uses made of searchlight, and how frequently used.

Motors:

Total number; total horsepower wired when plant was installed.

Present number; total horsepower wired.

Type of motors; sizes or capacity.

Give description of work being done by motors, and state the advantages or disadvantages experienced by their use.

Wiring installation:

Kind of wire used.

Type of insulation.

How supported—molded, cleated, or stapled.

Quantity of lead-covered wire used, in feet.

State in what parts of steamboat lead-covered wire is used.

Describe methods used to make installation water-tight, and in what parts of steamboat water-tight system is used.

#### SPECIAL SCHEDULE No. 15f.—MUNICIPAL ELECTRIC LIGHT AND POWER STATIONS.

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the municipality covers a

different period, the return may be for the fiscal year which most nearly conforms to the census year.

Period covered by this return, year ending . . . . , 1890.

*(Read carefully the explanatory notes, and examine all details of the entire schedule before commencing to fill it out. If in doubt about any point, write for further information)*

1. Name of municipality.
2. Date when station commenced operations.
3. Character of service rendered:
  - (a) Arc lighting: Residence; commercial; municipal.
  - (b) Incandescent lighting: Residence; commercial; municipal.
  - (c) Motor power: Stationary service.
  - (d) Motor power: Motor-car service.

NOTE.—Answer the above by yes or no. If any service rendered is not classified above, specify its character.

4. Methods of municipal acquisition and administration:

Initiative:

By which of the following methods was the initiative taken to induce the municipality to purchase and operate the plant?

Popular petition to legislature or council, signed by tax-paying citizens. Give the number of signers.

Popular petitions from reform, labor, or other quasipolitical organizations. Give names of organizations and number of signers.

Resolutions introduced by a member and by request in legislature or council.

On the recommendation of a special committee of the legislature or council appointed to investigate the subject.

Authority to purchase plant—How obtained:

By popular vote of citizens of the municipality:

Date vote was cast.

Number of votes in favor.

Number of votes in negative.

By act of municipal council:

Date vote was cast.

Number of votes in favor.

Number of votes in negative.

By act of legislature:

Date of vote in lower house.

Number of votes in favor.

Number of votes in negative.

Date of vote in upper house.

Number of votes in favor.

Number of votes in negative.

Was an electric lighting service being supplied to the municipality by a private company, firm, or person before or at the time when the municipality purchased an electric lighting plant for its own use?

Was the municipality required by law to acquire the plant of the private company, firm, or person as a condition of the authority given it to displace a private industry by transforming it into a municipal industry?

Did the municipality acquire the plant owned and operated by a private company, firm, or person, and performing service for the public, or did it purchase and install a new and independent plant?

Manner of making original purchase:

By contract awarded on proposals made in accordance with publicly advertised specifications.

By contract awarded on proposals made in accordance with specifications issued privately.

Manner of purchasing supplies for operation, renewals, or extensions:

By contract awarded on proposals made in accordance with publicly advertised specifications.

By contract awarded on proposals made in accordance with specifications issued privately.

Administration:

By a department or officer of the municipality organized or in commission before the purchase of the plant. If so, give name of department and officer in charge:

Department.

Officer in charge.

Official designation.

## 4. Methods of municipal acquisition and administration—Continued.

## Administration—Continued.

Is this officer elected by popular vote or appointed by the mayor or council?

Duration of term of office.

By a committee of council. If so, give names and addresses of the present members of such committee.

By special officer:

How appointed.

Duration of term.

Name of present officer.

Official designation.

How long has the present officer held his position?

How many persons have held this position?

Is it considered to be a political or nonpolitical office?

Does this officer perform any duties for the municipality other than those pertaining to the operation of the plant? If so, specify what such duties are.

Method of obtaining funds used in paying for plant:

By issue of bonds:

Amount issued.

Date of issue.

Date of maturity.

Rate of interest,                      per cent.

State method of obtaining funds for interest payments and for payment of bonds at maturity.

Were bonds sold by contract awarded on proposals made in accordance with publicly advertised specifications or at private sale?

Expenses of administration:

Are the expenses of supervision and accounting charged to the operating expenses of the plant or to the general expenses of the department office in which the work is done?

What is the annual increase of expense in such department or office attributable to the extra work caused by the ownership and operation of the plant?

To what account is the salary of the officer in charge of the plant charged?

Has his salary been increased on account of extra responsibility and duty assumed in the management of the plant?

Are any other expenses incurred by the municipality for the general administration of the plant? If so, by whom are they incurred, and into what account are they charged?

## 5. Cost of plant:

How invested.	Original cost.	Additions or appreciation of values.	Depreciation.	Present value.
Land.....				
Buildings.....				
Office fixtures and furniture.....				
Steam-power plant and its accessories.....				
Electric plant within station and its accessories.....				
Underground electric service construction.....				
Aerial electric service construction.....				
Lamps, motors, meters, and converters wired for use.....				
Lamps, globes, carbons, and wire, in stock for supply.....				
Motors, meters, and converters, in stock for supply.....				
Patent rights.....				
Supplies of every description on hand not enumerated in any of the foregoing items.....				
Total.....				

[Inquiries numbered 6 to 83, inclusive, in special schedule 15 are common to this schedule and are not here reproduced.]

508 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

**SPECIAL SCHEDULE No. 15g.—USES OF ELECTRICITY IN MEDICINE AND SURGERY: MANUFACTURE OF ELECTRICAL APPARATUS.**

State; County; Post-office; S. D.; E. D. . . . ., Special Agent or Enumerator.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the establishment covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

Period covered by this return, year ending . . . , 1890.

*(The following questions should be answered as briefly as possible, giving the necessary information for the use of the census office only.)*

1. Name of company, firm, or person in full.
2. Full address.

**ELECTRO-MEDICAL BATTERIES.**

Kind.	Number of each kind.	Sales to physicians, 1890.	Whole number sold to physicians.	Sales to laity, 1890.	Whole number sold to laity.	Sundry sales, 1890.	Whole number of sundry sales.
Galvanic .....							
Faradic .....							
Franklinic (static) .....							
Secondary .....							
Other varieties (give names): [6 blank lines.]							

**ELECTRICAL APPARATUS OR INSTRUMENTS.**

Kind.	Number of each kind.	Sales to physicians, 1890.	Whole number sold to physicians.	Sales to laity, 1890.	Whole number sold to laity.	Sundry sales, 1890.	Whole number of sundry sales.
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)

*a* Several blank lines are printed in schedule.

**NOTE.**—Describe notable improvements made in your batteries within the last five years, and state if the improvements were made in response to a demand for better batteries, or whether they were suggested by physicians or manufacturers.

**NOTE.**—Give detailed descriptions, as far as possible, or send copy of catalogue in which such descriptions are printed, of electrical apparatus and instruments of your manufacture.

Please give the address of all physicians known to you to be using electricity in their practice.

**SPECIAL SCHEDULE No. 15h.—USES OF ELECTRICITY IN MEDICINE AND SURGERY: MEDICAL COLLEGES.**

State; County; Post-office; S. D.; E. D. . . . ., Special Agent or Enumerator.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the college covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

Period covered by this return, year ending . . . , 1890.

## HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 509

*(The following questions should be answered as briefly as possible, giving the necessary information for the use of the census office only.)*

1. Name of college in full.
  2. Location.
  3. School of practice.
  4. Are electro-therapeutics and electro-surgery taught in your college?
  5. Have you a chair devoted to these branches, or does the teaching devolve upon a lecturer?
  6. How many lectures are given during each regular term?
  7. Are the lecture courses graded?
  8. How many years have you been giving such instruction?
  9. What text-books upon electro-therapeutics and electro-surgery do you recommend students to use in connection with the lectures?
  10. Do students receive such instruction upon general electricity in your physical and physiological laboratories as will enable them to diagnose injuries due to electricity as used in the arts?
  11. Is attendance upon the lectures and laboratory courses obligatory?
  12. What apparatuses are used in illustrating the lectures and in the laboratory?
  13. Do students have the advantage of clinical instruction in medical and surgical electricity, and to what extent?
  14. What was the average attained by your students in the above branches upon final examination in 1889 and 1890?
  15. Do you use electricity for light or power?
  16. Does the college own an isolated plant, or does it rent current from a central station?
- Please give below the address of all physicians known to you to be using electricity in their practice.

### SPECIAL SCHEDULE No. 15i.—USES OF ELECTRICITY IN MEDICINE AND SURGERY: HOSPITALS.

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the hospital covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

Period covered by this return, year ending ...., 1890.

*(The following questions should be answered as briefly as possible, giving the necessary information for the use of the census office only.)*

1. Name of hospital in full.
2. Location.
3. Do you use electricity as a remedial agent in your hospital?
  - (a) Note length of time since introduction.
4. To what extent do you use the galvanic current?
5. Do you derive such current from an electric-light wire or from a battery?
  - (a) If from a wire, how do you reduce or control the current?
  - (b) If from a battery, of what variety?
    - (a) Red acid; (b) sal ammoniac; (c) dry cell; (d) storage.
6. Do you use a mil-ammeter? (If a mil-ammeter is not used, this question and subdivisions thereof are not to be answered.)
  - (a) Note highest current strength given in any one case.
  - (b) Note general average strength.
  - (c) Note average length of sittings.
7. In what diseases do you use the faradic current?
  - (a) Note the franklinic (static)?
8. How many applications of electricity were made in your wards during the past year?
  - (a) How many in your out-patient department?
  - (b) Note increase or decrease over previous years?
9. Give a tabulated statement of diseases treated with electricity.
10. In what diseases and in what percentage of the cases have the results been favorable?
11. Are the applications made by skilled electro-therapeutists?

## 510 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

12. How many surgical operations have been performed in your hospital with electricity during the past year?
    - (a) Note with what success as compared with old methods of surgery.
    - (b) Note length of time of operation as compared with old methods.
  13. What effect does the electric light, incandescent or arc, have upon your nervous or insane patients?
  14. What effect does it have upon the eyes of patients and attendants as compared with gas or other light?
  15. What is the difference, as noted by you, in the hygienic effect upon the atmosphere, consequently upon your patients; and do or do not wounds heal more readily when your wards are lighted by incandescent lamps as compared with other forms of illumination—gas, oil, etc.?
- Please give the address of all physicians known to you to be using electricity in their practice.

### SPECIAL SCHEDULE No. 15j.—USES OF ELECTRICITY IN MEDICINE AND SURGERY: PHYSICIANS.

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of your practice covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

Period covered by this return, year ending ...., 1890.

*(The following questions should be answered as briefly as possible, giving the necessary information for the use of the census office only.)*

1. Give name in full.
2. Address in full.
3. Location.
4. School of practice.
5. Do you use electricity in your practice?
6. If so, how long have you used it?
7. To what extent do you use the galvanic current?
8. Do you derive such current from an electric-light wire, or from a battery?
  - If from the wire, how do you reduce or control the current?
  - If from a battery, of what variety?
    - (a) Red acid; (b) sal ammoniac; (c) dry cell; (d) storage.
9. Do you use a mil-ammeter? (If a mil-ammeter is not used, this question and subdivisions thereof are not to be answered.)
  - (a) Note highest current strength given in any one case.
  - (b) Note general average.
  - (c) Note average length of application.
10. In what diseases do you use faradic current?  
In what diseases the franklinic (static)?
11. How many patients did you treat by electricity during 1889?
  - (a) Note diseases thus treated.
  - (b) With what success?
12. How many genuine cases of ectopic gestation have you ever treated with electricity, and with what success?
  - (a) Note current strength used; also whether galvanic or faradic.
  - (b) Note length and number of applications, or sittings.
13. How many surgical operations have you performed with electricity, and with what success as compared with old methods of surgery?
  - (a) Give character of the operations.
  - (b) Note length of time of operation as compared with old methods.
14. Have you treated tumors with electricity?
  - (a) Uterine or other fibroids, and with what success?
  - (b) Goitres, and with what success?
  - (c) Strumous glands, and with what success?
  - (d) Hemorrhoids, and with what success?
  - (e) Aneurisms, and with what success?
  - (f) Ganglions, and with what success?
  - (g) Enlarged prostate glands, and with what success?
  - (h) Hydrocele, and with what success?
  - (i) Other tumors, and with what success?

15. In how many cases have you used electrolysis in strictures, and with what success?
  - (a) Urethral.
  - (b) Esophageal.
  - (c) Rectal.
  - (d) Cervical.
16. Do you use the electric laryngoscope and rhinoscope?
  - (a) How do they compare for convenience and efficiency with the old method of the lamp, head mirror, etc.?
17. Do you use an incandescent lamp in light concentrator of the laryngoscope, and with what success?
18. Have you used the electric cystoscope, and with what success?
19. Have you used the electric urethroscope, and with what success?
20. Have you used the electric gastroscope, and with what success?
21. What success, if any, have you had with the induction balance and telephonic probe for detecting metallic bodies in the deeply seated tissues?
22. What has been your experience in withdrawing metallic bodies from the eye by means of a permanent or electro-magnet?
  - (a) Note preference.
23. In what diseased conditions of the eye, ear, throat, and nose have you used electricity, and with what success?
24. Have you used electrolysis for the removal of superfluous hairs, moles, nevi, warts, etc., and with what success?
25. What effect, in your opinion, does the electric light, incandescent or arc, have upon the general health of persons constantly exposed to it?
26. What effect does it have upon the eyes when in constant use as compared with sunlight, gas, or other light?
27. What is the difference, as noted by you, in the hygienic effect upon the atmosphere, consequently upon your patients; do or do not wounds heal more readily when the sick room is lighted by the incandescent lamp as compared with other forms of illumination—gas, oil, etc.?
28. What difference, if any, have you noticed in the atmosphere of large halls, theaters, living rooms, etc., when lighted by electricity as compared with the old methods of illumination—gas, oil, etc.

SPECIAL SCHEDULE No. 15k.—MUNICIPAL FIRE-ALARM TELEGRAPHS.

State; County; Post-office; S. D.; E. D. . . . ., Special Agent or Enumerator.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the municipality covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

Period covered by this return, year ending . . . ., 1890.

*(Read carefully the explanatory notes, and examine all details of the entire schedule before commencing to fill it out. If in doubt about any point, write for further information.)*

Name of municipality.

Date when system commenced operations.

Character of system:

- (a) Automatic.
- (b) Manual.
- (c) Dial telegraph.

NOTE.—Answer the above by "yes" or "no." If any service rendered is not classified above, specify its character.

Administration:

By a department or officer of the municipality; if so, give name of department and officer in charge:

Department.  
Officer in charge.  
Official designation.

Is this officer elected by popular vote or appointed by the mayor or council?

Duration of term of office.

By a committee of council; if so, give names and addresses of the present members of such committee.

# 512 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## Administration—Continued.

By special officer:

How appointed.

Duration of term.

Name of present officer.

Official designation.

How long has the present officer held his position?

How many persons have held this position?

Is it considered to be a political or nonpolitical office?

Does this officer perform any duties for the municipality other than those pertaining to the operation of the plant? If so, specify what such duties are.

## Expenses of administration:

Are the expenses of supervision and accounting charged to the operating expenses of the plant or to the general expenses of the department office in which the work is done?

What is the annual increase of expense in such department or office attributable to the extra work caused by the ownership and operation of the plant?

To what account is the salary of the officer in charge of the plant charged?

Has his salary been increased on account of extra responsibility and duty assumed in the management of the plant?

Are any other expenses incurred by the municipality for the general administration of the plant? If so, by whom are they incurred, and into what account are they charged?

## Cost of plant:

How invested.	Original cost.	Additions or appreciation of values.	Depreciation.	Present value.
Land.....				
Buildings.....				
Office fixtures and furniture.....				
Electric plant within station and its accessories.....				
Underground electric service construction.....				
Aerial electric service construction.....				
Terminal apparatus and stations.....				
Patent rights.....				
Supplies of every description on hand not enumerated in any of the foregoing items.....				
Total.....				

## DESCRIPTION OF PHYSICAL PLANT.

### Operating instruments principally in use:

Type of instruments.	Transmitting number of instruments.	Receiving number of instruments.
Automatic signaling.....		
Telegraph code.....		
Dial telegraph.....		
Printing telegraph.....		
Telephone.....		
Other types (name): [4 blank lines.]		

### Alarm-announcing apparatus:

Type.	Number of annunciators.
Visual indicators.....	
Visual indicators combined with gongs.....	
Gongs.....	
Jokers.....	
Bell strikers.....	
Whistle blowing.....	
Other types (name): [4 blank lines.]	

## HISTORY AND GROWTH OF THE UNITED STATES CENSUS

Give list of scientific instruments in use, specifying kind and number of each.  
Batteries in use:

Type.	No.
Le Clanche .....	
Bluestone or gravity .....	
Dry .....	
Accumulators or storage .....	
Carbon .....	
Other types (name):	
[4 blank lines.]	

### Generators:

Type.	Number of each.	Signatures.
Hand dynamos .....		
Power dynamos .....		
Other types (name):		
[4 blank lines.]		

Miles of single wire of each kind in use:  
(Cables are not to be included in this list.)

Kind.	Miles of wire.
Galvanized iron .....	
Galvanized steel .....	
Bare copper .....	
Insulated copper .....	
Total .....	

### Miles of cable and miles of conductors:

Kind.	Miles of cable.	Total.
Aerial .....		
Underground, armored .....		
Underground, unarmored .....		
Submarine .....		
Submarine, unarmored .....		
[3 blank lines.]		

### Circuits:

Mileage of metallic circuits.	Current.			Mileage of grounded circuits.	Current.	
	Voltage.	Amperage.	Alternating or continuous.		Voltage.	Amperage.
(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

# 514 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## Line construction:

### Grounded circuits:

Type of apparatus in circuit indicated by name or location.	Total number of circuits.	Total number of aerial circuits.	Total mileage of aerial circuits.	Total number of underground circuits.	Total mileage of underground circuits.
Alarm boxes .....					
Engine houses .....					
Reel or hook and ladder houses .....					
Municipal offices .....					
Residences of members of force .....					
Insurance and other business offices .....					
Other locations (name): [4 blank lines.]					

### Metallic circuits:

Type of apparatus in circuit indicated by name or location.	Total number of circuits.	Total number of aerial circuits.	Total mileage of aerial circuits.	Total number of underground circuits.	Total mileage of underground circuits.
Alarm boxes .....					
Engine houses .....					
Reel or hook and ladder houses .....					
Municipal offices .....					
Residences of members of force .....					
Insurance and other business offices .....					
Other locations (name): [4 blank lines.]					

## Miles of supports and number of wires supported:

Kind of support.	Miles of each.	Number of wires supported.	Number of cables supported.
Poles .....			
House tops and other supports except poles .....			
Underground .....			
Submarine .....			
[3 blank lines.]			

## SERVICE CAPACITY.

Location of apparatus.	Number of stations.	Number and type of devices.			
		Signaling.	Telegraphing.	Telephoning.	Announcing.
Alarm boxes:					
On buildings .....					
On poles .....					
In booths .....					
Engine houses .....					
Reel or hook and ladder houses .....					
Central fire-alarm offices .....					
Municipal offices .....					
Insurance and other business offices .....					
Residences of members of force .....					
Public alarm bells .....					
Other locations (name): [4 blank lines.]					

## SERVICE RECORD—ALARMS.

Time of connections.	Number of alarms.									
	Force alarms (first call).		Force alarms (second call).		Public alarms (first call).		Public alarms (second call).		General alarms.	
	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.
Total per year.....										
Monthly record:										
January.....										
February.....										
March.....										
April.....										
May.....										
June.....										
July.....										
August.....										
September.....										
October.....										
November.....										
December.....										
Daily record:										
Average number per day of 24 hours.....										
Highest number in one day of 24 hours.....										
Highest number in one day, daylight.....										
Highest number in one day, night.....										
Highest number in one hour, daylight.....										
Highest number in one hour, night.....										

## SERVICE RECORD—OTHER THAN ALARMS.

Character of service.	Signals, number sent.	Telegraph mes- sages, number sent.	Telephone conversations, number.
Testing circuits.....			
Duty reports.....			
Asking instructions.....			
Giving instructions.....			
Miscellaneous.....			

## DESCRIPTION OF ALARM BOXES.

Specifications.	Number.
Operated by weight.....	
Operated by spring.....	
Having keyless doors.....	
Having trap locks.....	
Other special features (name): [4 blank lines.]	

## DESCRIPTION OF CENTRAL OFFICE RECEIVING AND RECORDING DEVICES.

Name of device.	Number of each in use.	Number of circuits regis- tered.	Can device op- erate inde- pendent instru- ments?	Number of in- struments con- nected with device.
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

## 516 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### METHOD OF ANNOUNCING ALARMS IN CENTRAL OFFICE.

- (a) Visual indicator.
- (b) Gong.
- (c) Visual indicator and gong combined.

### METHOD OF REGISTERING ALARMS IN CENTRAL OFFICE.

- (a) Embossing.
- (b) Chemical.
- (c) Inking.
- (d) Printing.
- (e) Other methods (name).

### CENTRAL OFFICE REPEATERS.

How operated.

Can all alarms or any selected alarm or set of alarms be operated as desired?

Does system strike hours of day on tower bell or other public device?

Describe method of giving public alarm.

### DESCRIPTION OF SWITCHBOARD.

*Describe fully mechanical and electrical construction, magneto bells, batteries, and other details contributory to operations, service capacity, number of operators required, space occupied, quantity of principal material used in construction, cost of construction, and annual cost of royalties and maintenance.*

### FIRE RECORD.

Total number of false alarms.

Total number of alarms. Fire extinguished before apparatus of department was brought into use.

Total number of fires extinguished by the department within one-half hour after the alarm was given.

Total number of fires extinguished by the department on the premises where the fire originated and before it was communicated to other buildings.

Total number of fires extinguished by the department in the room or on the floor where the fire originated and before it was communicated to other parts of the same building.

Total value of property destroyed by fire during the year.

Describe briefly advantages of the present over former methods of giving fire alarms.

### ANALYSIS OF EXPENSES.

Labor and wages:

*NOTE.—Wages paid should include board or rent furnished as part compensation.*

*This list should include only those persons employed for the operation and maintenance of the electrical system.*

Class.	Average number employed during the year	Total amount paid in wages during the year.
Superintendents, inspectors, and linemen:		
Males .....		
Clerks and operators:		
Males above 16 years .....		
Females above 16 years .....		
Children .....		
Helpers, watchmen, laborers, teamsters, and other unskilled workmen:		
Males above 16 years .....		
Total .....		

Weekly rates of wages paid and average number of hands employed at each rate:

The table of weekly rates in special schedule No. 15 (inquiry schedule and is not here reproduced.)

the table in this

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 517

## Total disbursements:

Labor and wages.

### Rentals:

Central office.

Other office rents.

Privileges on poles.

Privileges on house tops and sundry supports.

Underground conduits.

Office furniture, fixtures, and repairs.

Stationery.

Fuel and lights.

Instruments, renewals and repairs.

Batteries, renewals and repairs.

Line construction, renewals and repairs.

Miscellaneous expenses.

### General fixed charges:

Insurance, total annual premium.

Interest at      per cent on debt for system.

Patent licenses and royalties, annual amount.

Total disbursements.

Depreciation on—	Rate per cent.	Annual amount.
Buildings .....		
Office fixtures and furniture .....		
Line construction .....		
Batteries and instruments .....		
Total depreciation .....		

## INCOME.

From what sources received.	Annual amount.
(a)	(a)
Total income.....	

a Several blank lines are printed in schedule.

## SPECIAL SCHEDULE No. 15k.—MUNICIPAL FIRE-ALARM TELEGRAPHS (UNDERGROUND SUPPLEMENT).

State; County; Post-office; S. D.; E. D.     , Special Agent or Enumerator.

### UNDERGROUND CONDUITS AND SERVICE.

NOTE.—The information provided for by this form is to be given by each city in which the underground service is in use.

Name of municipality; state.

[Inquiries numbered 79 and 80 in special schedule No. 15 are common to this schedule and are not here reproduced.]

### UNDERGROUND CONDUCTORS.

Miles of cables.

Total miles of conductors in cables.

Average number of conductors in cables.

Miles of conductor, single wire, grounded circuit.

Miles of conductor, single wire, metallic circuit.

Miles of conductor, wires twisted in pairs.

Miles of conductor, wires twisted in pairs, twin wire, grounded.

Miles of conductor, wires twisted in pairs, metallic circuit.

Length of longest underground conductor in use.

Method of distribution from conduit to buildings.

Is more than one service connection made for each block?

Give number of wires per duct for each service connection.

# 518 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## SPECIAL SCHEDULE No. 15L.—MUNICIPAL POLICE PATROL TELEGRAPHS.

State; County; Post-office; S. D.; E. D. . . . ., Special Agent or Enumerator.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the municipality covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

Period covered by this return, year ending . . . ., 1890.

*(Read carefully the explanatory notes, and examine all details of the entire schedule before commencing to fill it out. If in doubt about any point, write for further information.)*

Name of municipality.

Date when system commenced operations.

Character of system:

- (a) Automatic.
- (b) Manual.
- (c) Dial telegraph.

NOTE.—Answer the above by "yes" or "no." If any service rendered is not classified above, specify its character.

Administration:

By a department or officer of the municipality; if so, give name of department and officer in charge:

Department.

Officer in charge.

Official designation.

Is this officer elected by popular vote or appointed by the mayor or council?

Duration of term of office.

By a committee of council; if so, give names and addresses of the present members of such committee.

By special officer:

How appointed.

Duration of term.

Name of present officer.

Official designation.

How long has the present officer held his position?

How many persons have held this position?

Is it considered to be a political or nonpolitical office?

Does this officer perform any duties for the municipality other than those pertaining to the operation of the plant? If so, specify what such duties are.

Expenses of administration:

Are the expenses of supervision and accounting charged to the operating expenses of the plant or to the general expenses of the department office in which the work is done?

What is the annual increase of expense in such department or office attributable to the extra work caused by the ownership and operation of the plant?

To what account is the salary of the officer in charge of the plant charged?

Has his salary been increased on account of extra responsibility and duty assumed in the management of the plant?

Are any other expenses incurred by the municipality for the general administration of the plant; if so, by whom are they incurred, and into what account are they charged?

Cost of plant:

How invested.	Original cost.	Additions or appreciation of values.	Depreciation.	Present value.
Land.....				
Buildings.....				
Office fixtures and furniture.....				
Electric plant within station and its accessories.....				
Underground electric service construction.....				
Aerial electric service construction.....				
Terminal apparatus and stations.....				
Patent rights.....				
Supplies of every description on hand not enumerated in any of the foregoing items.....				
Total.....				

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 519

## DESCRIPTION OF PHYSICAL PLANT.

Operating instruments principally in use:

Type of instruments.	Transmitting number of instruments.	Receiving number of instruments.
Automatic signaling.....		
Telegraph code.....		
Dial telegraph.....		
Printing telegraph.....		
Telephone.....		
Other types (name): [3 blank lines.]		

Signal-announcing apparatus:

Type.	Number of annunciators.
Visual indicators.....	
Visual indicators combined with gongs.....	
Gongs.....	
Magneto call bells.....	
Other types (name): [3 blank lines.]	

Give list of scientific instruments in use, specifying kind and number of each kind.  
Batteries in use:

Type.	Number of cells.
Le Clanche.....	
Bluestone or gravity.....	
Dry.....	
Accumulators or storage.....	
Carbon.....	
Other types (name): [4 blank lines.]	

Generators:

Type.	Number of each.	Signaling capacity in miles.
Hand dynamos.....		
Power dynamos.....		
Other types (name): [4 blank lines.]		

Miles of single wire of each kind in use:  
(Cables are not to be included in this list.)

Kind.	Miles of single wire of each kind.
Galvanized iron.....	
Galvanized steel.....	
Bare copper.....	
Insulated copper.....	
Total.....	

## 520 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Miles of cable and miles of conductors:

Kind.	Miles of cable.	Total miles of conductors.
Aerial.....		
Underground.....		
Submarine.....		
[4 blank lines.]		

Circuits:

Mileage of grounded circuits.	Current.			Mileage of metallic circuits.	Current.		
	Voltage.	Amperage.	Alternating or continuous.		Voltage.	Amperage.	Alternating or continuous.
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

Line construction:

Grounded circuits:

Type of apparatus in circuit indicated by name or location.	Total number of circuits.	Total number of aerial circuits.	Total mileage of aerial circuits.	Total number of underground circuits.	Total mileage of underground circuits.
Patrol boxes.....					
Booths.....					
Patrol wagon stations.....					
Police stations.....					
Ambulance stations.....					
Hospitals or medical aid stations.....					
Municipal offices.....					
Residences of members of force.....					
Banks.....					
Other locations (name): [3 blank lines.]					

Metallic circuits:

Type of apparatus in circuit indicated by name or location.	Total number of circuits.	Total number of aerial circuits.	Total mileage of aerial circuits.	Total number of underground circuits.	Total mileage of underground circuits.
Patrol boxes.....					
Booths.....					
Patrol wagon stations.....					
Police stations.....					
Ambulance stations.....					
Hospitals or medical aid stations.....					
Municipal offices.....					
Residences of members of force.....					
Banks.....					
Other locations (name): [3 blank lines.]					

Miles of supports and number of wires supported:

Kind of support.	Miles of each.	Number of wires supported.	Number of cables supported.
Poles.....			
Use tops and other supports except poles.....			
Underground.....			
Submarine.....			
[1 blank line.]			

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 521

## SERVICE CAPACITY.

Location of apparatus.	Number of stations.	Number and type of devices.			
		Signaling.	Telegraph- ing.	Telephon- ing.	Announc- ing.
Patrol boxes:					
On buildings .....					
On poles .....					
In booths .....					
Patrol wagon stations .....					
Police stations .....					
Ambulance stations .....					
Hospitals or medical aid stations .....					
Coroners' offices .....					
Police headquarters .....					
Municipal officers .....					
Residences of members of force .....					
Banks .....					
Other locations (name): [4 blank lines.]					

## SERVICE RECORD.

Period covered by report.	Number of signals or messages sent.		
	Signals.	Telegraph messages.	Telephone messages.
Total per year .....			
Monthly record: (a)			

a A blank for each month of the year is printed in schedule.

## ANALYSIS OF SERVICE RECORD.

Character of service.	Number announced by each type of services.		
	Signals, number sent.	Telegraph messages, num- ber sent.	Telephone messages, num- ber sent.
Coroner notified .....			
Officers summoned to the court or grand jury .....			
Relating to fires .....			
Descriptions of:			
Stolen property .....			
Criminals .....			
Missing persons .....			
Lost children .....			
Restored to friends or owners:			
Missing persons .....			
Lost children .....			
Estrays .....			
Vehicles .....			
Classified .....			
Miscellaneous .....			
Total calls .....			
Missing persons:			
Men .....			
Women .....			
Lost children:			
Boys .....			
Girls .....			
Estrays:			
Horses .....			
Mules .....			
Cattle .....			
Vehicles:			
Wagons .....			
Carts .....			
Drays .....			
Push carts .....			

## 522 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### ANALYSIS OF SERVICE RECORD—continued.

Character of service.	Number announced by each type of services.		
	Signals, number sent.	Telegraph messages, num- ber sent.	Telephone messages, num- ber sent.
Wagon calls:			
Conveyance of prisoners.....			
Conveyance of injured persons.....			
Conveyance of officers to and from fires.....			
Miscellaneous.....			
Total wagon calls.....			
Bank calls:			
Duty reports.....			
For assistance or alarm.....			
Total bank calls.....			

### DESCRIPTION OF PATROL BOXES.

Specifications.	Number.
Operated by weight.....	
Operated by spring.....	
Having keyless doors.....	
Having trap locks.....	
Other special features (name): [4 blank lines.]	

### DESCRIPTION OF CENTRAL OFFICE RECEIVING AND RECORDING DEVICES.

Name of device.	Number of each in use.	Number of circuits reg- istered.	Can device operate inde- pendent instruments?	Number of instruments connected with device.
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

### METHOD OF ANNOUNCING SIGNALS IN CENTRAL OFFICE.

- (a) Visual indicator.
- (b) Gong.
- (c) Visual indicator and gong combined.

### METHOD OF REGISTERING SIGNALS IN CENTRAL OFFICE.

- (a) Embossing.
- (b) Chemical.
- (c) Inking.
- (d) Printing.
- (e) Other methods (name).

### CENTRAL OFFICE REPEATERS.

How operated.

### DESCRIPTION OF SWITCHBOARD.

Describe fully mechanical and electrical construction, magneto bells, batteries, and other details contributory to operations, service capacity, number of operators required, space occupied, quantity of principal material used in construction, cost of construction, and annual cost of royalties and maintenance.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 523

## ANALYSIS OF EXPENSES.

### Labor and wages:

NOTE.—Wages paid should include board or rent furnished as part compensation. This list should include only those persons employed for the operation and maintenance of the electric system.

Classes.	Average number employed during the year.	Total amount paid in wages during the year.
Superintendents, inspectors, and linemen:		
Males .....		
Clerks and operators:		
Males above 16 years.....		
Females above 15 years.....		
Children .....		
Helpers, watchmen, laborers, teamsters, and other unskilled workmen:		
Males above 16 years.....		
Total .....		

### Weekly rates of wages paid and average number of hands employed at each rate.

[The table of weekly rates in special schedule No. 15 (inquiry 6) is common to the table in this schedule and is not here reproduced.]

## TOTAL DISBURSEMENTS.

### Labor and wages.

#### Rentals:

- Central office.
- Other office rents.
- Privileges on poles.
- Privileges on house tops and sundry supports.
- Underground conduits.

#### Office furniture, fixtures, and repairs.

#### Stationery.

#### Fuel and lights.

#### Instruments, renewals and repairs.

#### Batteries, renewals and repairs.

#### Line construction, renewals and repairs.

#### Miscellaneous expenses.

#### General fixed charges:

- Insurance, total annual premium.
- Interest at     per cent on debt for system.
- Patent licenses and royalties, annual amount.
- Total disbursements.

Depreciation on—	Rate per cent.	Annual amount.
Buildings.....		
Office fixtures and furniture.....		
Line construction .....		
Batteries and instruments.....		
Total depreciation.....		

## INCOME.

From what sources received.	Annual amount.
(a)	(a)
Total income.....	

a Several blank lines are printed in schedule.

## 524 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### SPECIAL SCHEDULE No. 15L.—MUNICIPAL POLICE PATROL TELEGRAPHS (UNDERGROUND SUPPLEMENT).

State; County; Post-office; S. D.; E. D. . . . ., Special Agent or Enumerator.

#### UNDERGROUND CONDUITS AND SERVICE.

NOTE.—The information provided for by this form is to be given by each city in which the underground service is in use.

Name of municipality; state.

#### UNDERGROUND CONDUITS.

[Inquiries numbered 79 and 80 in special schedule No. 15 are common to this schedule and are not here reproduced.]

#### UNDERGROUND CONDUCTORS.

Miles of cables.

Total miles of conductors in cables.

Average number of conductors in cables.

Miles of conductor, single wire, grounded circuit.

Miles of conductor, single wire, metallic circuit.

Miles of conductor, wires twisted in pairs.

Miles of conductor, wires twisted in pairs, twin wire, grounded.

Miles of conductor, wires twisted in pairs, metallic circuit.

Length of longest underground conductor in use.

Method of distribution from conduit to buildings.

Is more than one service connection made for each block?

Give number of wires per duct for each service connection.

### SPECIAL SCHEDULE No. 15m.—DISTRICT MESSENGER COMPANIES.

State; County; Post-office; S. D.; E. D. . . . ., Special Agent or Enumerator.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the business covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

Period covered by this return, year ending . . . ., 1890.

*(Read carefully the explanatory notes, and examine all details of the entire schedule before commencing to fill it out. If in doubt about any point, write for further information.)*

1. Name of corporation, firm, or person.
2. Date of incorporation.
3. Under the laws of what state or states incorporated.
4. Date when company commenced business.
5. Name and business address of all executive officers.

#### DESCRIPTION OF PHYSICAL PLANT.

Operating instruments principally in use:

Type of instruments.	Transmitting number of instruments.	Receiving number of instruments.
Automatic signaling .....		
Telegraph code .....		
Dial telegraph .....		
Printing telegraph .....		
Telephone .....		
Other types (name): [3 blank lines.]		

Give list of scientific instruments in use, specifying kind and number of each kind.

## Batteries in use:

Type.	Number of cells.
Le Clanche.....	
Bluestone or gravity .....	
Dry.....	
Accumulators or storage.....	
Carbon .....	
Other types (name): [3 blank lines.]	

## Generators:

Type.	Number of each.	Signaling capacity in miles.
Magneto .....		
Hand dynamos .....		
Power dynamos .....		
Other types (name): [2 blank lines.]		

Miles of single wire of each kind in use:  
(Cables are not to be included in this list.)

Kind.	Miles of single wire of each kind.
Galvanized iron.....	
Galvanized steel.....	
Bare copper .....	
Insulated copper .....	
Insulated iron.....	
Total .....	

## Miles of cable and miles of conductors:

Kind.	Miles of cable.	Total miles of conductors.
Aerial.....		
Underground .....		
Submarine.....		
[3 blank lines.]		

## Circuits:

Mileage of grounded circuit.	Current.			Mileage of metallic circuit.	Current.		
	Voltage.	Amperage.	Alternating or continuous.		Voltage.	Amperage.	Alternating or continuous.
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

## Line construction:

Character of circuit.	Total number of aerial circuits.	Total mileage of aerial circuits.	Total number of underground circuits.	Total mileage of underground circuits.
Grounded .....				
Metallic.....				
[1 blank line.]				

# 526 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Miles of supports and number of wires supported:

Kind of support.	Miles of each.	Number of wires supported.	Number of cables supported.
Poles .....			
House tops and other supports except poles.....			
Underground.....			
Submarine .....			
[3 blank lines.]			

Description of switch board:

Describe fully mechanical and electrical construction, magneto bells, batteries, and other details contributory to operations, service capacity, number of operators required, space occupied, quantity of principal material used in construction, cost of construction, and annual cost of royalties and maintenance.

## SERVICE CAPACITY.

Officers, devices, and force.	Total number.
Districts .....	
Circuits .....	
Branch offices or stations.....	
Call boxes.....	
Signaling devices.....	
Telegraphing devices.....	
Telephone devices.....	
Employees:	
Management and office force.....	
Messenger force .....	
Construction and repair force .....	
Service performed.	Total number.
Calls answered .....	
Messages collected.....	
Messages delivered.....	
Average number calls per box.....	
Average number calls per messenger.....	

## TARIFF RATE OF CHARGES.

State basis of rate and rate for time specified and method of collecting payment.

## INCOME.

NOTE.—Income from services other than district messenger calls should be excluded from this statement.

Messenger calls: Total number; total income.  
Rent of private instruments and wires: Total income.  
Instruments leased on royalty: Total income.  
Rent from buildings, offices, and privileges sublet: Total income.  
Interest received: Total income.  
Dividends received on stocks of other companies: Total income.  
Miscellaneous sources: Total income.  
Total gross annual income.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 527

## ANALYSIS OF EXPENSES.

### Labor and wages:

NOTE.—Persons employed on commission and their earnings should be separately reported below. Wages paid should include board and rent when furnished as part compensation.

Classes.	Average number employed during the year.	Total amount paid in wages during the year.
Officers and directors .....		
General superintendents and inspectors .....		
Managers and operators:		
Males .....		
Females .....		
Clerks and office boys:		
Males above 16 years .....		
Females above 15 years .....		
Children .....		
Messengers:		
Males above 16 years .....		
Children .....		
Foremen and linemen .....		
Other employees:		
Males above 16 years .....		
Females above 15 years .....		
Children .....		
Commission work:		
Males .....		
Females .....		
Total .....		

Monthly rate of wages paid, and average number of hands employed at each rate (not including those employed on commission work):

Rates per month.	Males above 16 years.	Females above 15 years.	Children.
Under \$20 .....			
\$20 and over, but under \$25 .....			
\$25 and over, but under \$30 .....			
\$30 and over, but under \$35 .....			
\$35 and over, but under \$40 .....			
\$40 and over, but under \$45 .....			
\$45 and over, but under \$50 .....			
\$50 and over, but under \$65 .....			
\$65 and over, but under \$75 .....			
\$75 and over, but under \$85 .....			
\$85 and over, but under \$100 .....			
\$100 and over, but under \$125 .....			
\$125 and over .....			

Average number of hours in the ordinary day of labor:

Managers and operators, hours per day.  
Clerks and office boys, hours per day.  
Foremen and repair men, hours per day.  
Messengers, hours per day.  
Battery men, hours per day.  
Other employees, hours per day.

Total disbursements:

Labor and wages.

Rentals:

Central office.

Other office rents.

Privileges on poles.

Privileges on house tops and sundry supports.

Underground conduits.

Office furniture, fixtures, and repairs.

Stationery.

Fuel and lights.

Instruments, renewals and repairs.

## 528 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### Total disbursements—Continued.

Batteries, renewals and repairs.  
 Line construction, renewals and repairs.  
 Miscellaneous expenses.  
 General fixed charges:  
     Insurance, total annual premium.  
     Interest at     per cent on debt for system.  
     Patent licenses and royalties, annual amount.  
     Total disbursements.

Depreciation on—	Rate per cent.	Annual amount.
Buildings .....		
Office fixtures and furniture .....		
Line construction .....		
Batteries and instruments .....		
Total depreciation .....		

### INVESTMENTS.

NOTE.—The value of real estate, physical plant, securities, patents, franchises, and sundry items should be estimated at what their cost would be in 1890, if then to be bought, erected, or obtained, with such allowance for depreciation as may be suitable in consideration of the length of time the property has been in use. The value of securities owned should be estimated at their average market price during the period covered by this return.

Total value of real estate.  
 Total value of physical plant.  
 Total value of securities.  
 Total value of patents, franchises, and rights of way.  
 Total value of sundry items.  
 Total.

### Investments, how held:

NOTE.—In case of corporations having a definite capital stock, the sum to be reported is the amount of such capital actually paid in, plus the amount credited as stock or script dividends, divided surplus, profits or interest, and not the present market value of the stock.

Capital stock paid in or issued for value.  
 Surplus fund or undivided profits.  
 Bonds payable.  
 Bills and accounts payable, and all other credits exclusive of bonds.  
 Total.

### CLASSIFICATION OF SHAREHOLDERS.

Males (number).  
 Females (number).  
 Firms (number).  
 Other telephone companies (number).  
 Executors, trustees, etc. (number).  
 Banks, insurance, and trust companies (number).  
 Total.

### SPECIAL SCHEDULE No. 15n.—USES OF ELECTRICITY IN MINING.

State; County; Post-office; S. D.; E. D. ...., Special Agent or Enumerator.  
 Period covered by this return, year ending ...., 1890.

### LOCATION.

1. Name of mine or works.
2. Location of mine:  
     Mining district or region.  
     County.  
     State or territory.
3. Name and post-office address of company, corporation, or individual operating mine or works.
4. Name and post-office address of resident superintendent or manager.

## STEAM POWER USED IN OPERATING ELECTRIC PLANT.

## Boilers:

Type; number of each type; working pressure; horsepower at working pressure;  
distance from boilers to engines, feet.

## Engines:

Type.	Condens- ing.	Diameter of cylinder.	Stroke.	Vertical.	Horizontal.
Single cylinder .....					
Compound .....					
Triple expansion .....					

## Fuel:

Wood; coal; oil; gas; average cost of fuel per horsepower.

Distance of steam plant from terminal of effective work.

Estimated present value of steam plant.

## WATER POWER USED IN OPERATING ELECTRIC PLANT.

## Water wheels:

Type.	Number of each type.	Hydraulic head.	Rated power.	Vertical.	Hori- zontal.	Speed horse- power.
(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

Average cost of water power per horsepower.

Distance of water power from farthest terminal of effective work.

Estimated present value of water-power plant.

Give information corresponding to the above for any independent power used other  
than steam or water.

If power is rented, state character of power.

Number of horsepower rented.

Cost of rental power per year per horsepower.

If power is rented from electric central station, state distance between dynamos and  
motors, feet.

Date when electrical plant was installed.

Cost and present value of electric plant:

Cost when installed.

Cost of additions.

Total cost.

Depreciation to be deducted.

Present value of the plant.

Annual cost of supplies, including carbons, incandescent lamps, brushes, oil, waste,  
wire, etc.

Annual cost of repairs.

## CHARACTER OF WORK DONE BY THE USE OF ELECTRICITY.

NOTE.—This schedule is intended to include the work done by the use of electrical  
apparatus owned and operated by this company. If electric currents are obtained  
from apparatus not owned by this company, give in space provided below the name  
and address of the owner of such apparatus.

Please answer the following questions by "yes" or "no:"

1. Electric locomotives; 2. Rope haulage; 3. Hoisting; 4. Drilling; 5. Coal cut-  
ting; 6. Pumping; 7. Ventilating; 8. Blast firing; 9. Stamps or crushers; 10.  
Amalgamating; 11. Separating; 12. Signaling; 13. Telephoning; 14. Incandescent  
lighting; 15. Arc lighting; 16. Other uses (name).

If current is supplied from apparatus owned by another company, firm, or person,  
give full name and address.

# 530 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## DESCRIPTION OF DYNAMOS.

Type.	Volts.	Amperes.	Watts.	Number of each type and capacity.
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

## SCIENTIFIC INSTRUMENTS USED WITH PLANT.

Give list below showing number and capacity of all instruments and apparatus in use with plant, except dynamos or motors:

Name of instrument.	Capacity.	Number of each.
(a)	(a)	(a)

a Several blank lines are printed in schedule.

## ELECTRIC LOCOMOTIVES.

Character of tramway:

- Is mine a shaft, slope, or drift?
- Length of haulage.
- Total length of track operated by electric locomotive.
- Grade against load: Maximum; average.
- Grade in favor of load: Maximum; average.
- Number of curves; radii of curves.
- Weight of train hauled by each locomotive, stated in tons.
- Daily output per each locomotive, stated in tons.
- Total output of mine per day, tons.
- Number of electric locomotives placed in service when plant was first installed.
- Number of electric locomotives now in service.
- Horsepower of each electric locomotive.
- Weight of each electric locomotive.
- Character of motive power displaced by the electric locomotive.
- Weight of train hauled by such motive power, stated in tons.
- Cost of haulage by electric locomotive per ton.
- Cost of haulage by displaced power per ton.

## ELECTRIC ROPE HAULAGE.

Location of motor: Surface or underground.

- Distance between motor and dynamo.
- Horsepower capacity of motor.
- Weight of haul, full load.
- System of rope hauling in use.
- Length of rope.
- Speed of rope.
- Size of rope.
- Material of rope.
- Grade against haul: Maximum; average.
- Grade in favor of haul: Maximum; average.
- Number of curves; radii of curves.
- Total output per day in tons.

Character of power for haulage displaced by the use of electric power.

- Weight of haul, full load.
- Total output per day in tons.
- Cost of haulage by electric power per ton.
- Cost of haulage of other power per ton.

ELECTRIC HOISTS.

- Location of hoist: Surface or underground.
  - Horsepower capacity of motor.
  - Distance between motor and dynamo.
  - Number of hoists.
  - Number of motors.
  - Weight of hoist, full load.
  - Length of hoist.
  - Speed of hoist.
  - Total output per day in tons.
- Character of power displaced by the use of electric power.
  - Weight of hoist, full load.
  - Total output per day in tons.
  - Cost of hoisting by electric power per ton.
  - Cost of hoisting by other power per ton.
- Please give description of electric hoist, mentioning particularly any special feature of importance.

ELECTRIC DRILLS.

- Location of drills: Surface or underground.
  - Are drills and motors mounted on same or on individual supports?
  - Horsepower capacity of motor.
  - Distance between motor and dynamo.
  - Number of motors.
- Drills:
  - Rotary, number.
  - Diamond, number.
  - Percussion, number.
  - Material in which drills are used.
  - Diameter of holes drilled.
  - Length of holes drilled.
  - Give output of drills per day.
  - Are drills worked one, two, or three shifts per day?
- Character of power for drills displaced by the use of electric power.
  - Output of drills per day.
  - Cost of drilling by electric power per ton.
  - Cost of drilling by other power per ton.

ELECTRIC COAL CUTTERS.

- Location of motor: Mounted with coal cutter or on separate truck.
  - Horsepower capacity of motor.
  - Distance between motor and dynamo.
  - Number of motors.
- Coal cutters:
  - Rotary, number.
  - Reciprocating, number.
  - Type of coal cutter.
  - Depth to which coal cutter can undercut.
  - Width of cut made.
  - Number of cuts per day per cutter.
  - Number of square feet undercut per day.
  - Number of shifts per day: 1, 2, or 3.
  - Output per day per cutter in tons.
- System of mining: Longwall or room and pillar.
  - Height of dip or vein.
  - Width of room.
- Character of coal.
- Character of power for cutting displaced by the use of electric power.
  - Output of cutters per day in tons.
  - Output of miners per day in tons.
  - Cost of cutting by electric power per ton.
  - Cost of cutting by other power per ton.

ELECTRIC PUMPS.

Location of pumps: Surface or underground.

Horsepower capacity of motor.  
Distance between motor and dynamo.  
Number of motors.  
Number of pumps.  
Capacity of pump.  
Type of pump.  
Distance between pump and dynamo.  
Height of water lift.  
Length of suction pipe.  
Length of discharge pipe.  
Size of discharge pipe.  
Number of bends in pipe.

ELECTRIC VENTILATING FANS.

Location of fans: surface or underground.

Horsepower capacity of motor.  
Distance between motor and dynamo.  
Number of motors.  
Number of revolutions per fan per minute.  
Cubic feet capacity of fan.  
Size of fan.  
Number of fans.  
Type of fans.

ELECTRIC BLAST FIRING.

Source of current:

Power or lighting wires.  
Primary batteries.  
Hand dynamos.  
Operated from inside or outside of mine.

What methods of blast firing were displaced by electricity?

Is the use of electricity more certain and safe, and what other advantages has it over other methods?

ELECTRICAL STAMPS AND CRUSHERS.

Number of stamps operated by each motor.

Weight of each stamp.

Height to which each stamp is raised.

Capacity of stamps.

Number of crushers operated by each motor.

Capacity of each crusher.

Capacity in horsepower of each motor.

Give general description of motors and other electrical apparatus used for this purpose, horsepower in use, work done, and advantages over former methods.

ELECTRICAL AMALGAMATION.

Give general description of motors or other electrical apparatus used for this purpose, horsepower in use, work done, and advantages over former methods.

ELECTRICAL SEPARATING.

Type of magnetic system.

Power required per magnetic system.

Capacity of magnetic system.

Nature of material handled by magnetic system.

Metal to be refined:

Character of metal.

Per cent of impurities contained *before* refining.

Per cent of impurities contained *after* refining.

Number of vats used.

Weight of material refined per day.

Power required.

Give general description of motors or other electrical apparatus used for this purpose, horsepower in use, work done, and advantages over former methods.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 533

## BATTERIES IN USE.

Names of batteries.	Number of cells of each kind.	For what purpose used.
Le Clanche batteries.....		
Bluestone or gravity batteries.....		
Dry batteries.....		
Carbon batteries.....		
Accumulator or storage batteries.....		
Other varieties of batteries (name).....		
[3 blank lines.]		

Signaling apparatus.				Telephone apparatus.			
Transmitting apparatus, kind.	Number of each kind.	Receiving apparatus, kind.	Number of each kind.	Transmitting apparatus, kind.	Number of each kind.	Receiving apparatus, kind.	Number of each kind.
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

## MAGNETO GENERATORS—DYNAMOS.

Hand.			Power.			
Kind.	Number.	Signaling capacity in miles.	Kind.	How operated.	Number of each kind.	Signaling capacity in miles.
(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

Describe position and purpose of electrical signaling apparatus.  
Describe position and purpose of telephoning apparatus.

## INCANDESCENT LIGHTING.

Total number of lamps wired when plant was installed.  
Present number wired.  
Total number required for renewals per year.  
Total number of arc lamps operated on incandescent lamp circuits.

## ARC LIGHTING.

Single carbon lamps:

Total number wired when plant was installed.  
Present number wired.  
Current required for each lamp: Volts; amperes.

Double carbon lamps:

Total number wired when plant was installed.  
Present number wired.  
Current required for each lamp: Volts; amperes.

Total number of incandescent lamps operated on arc-lamp circuits.

Describe location of incandescent and arc lamps and the advantages of using them in comparison with other systems of lighting.

## SPECIAL ELECTRIC MOTORS.

Total number wired when plant was installed; total horsepower.

Present number wired; total horsepower.

Distances between motors and dynamos.

Give description of work being done by electric motors, and state the advantages or disadvantages experienced by their use in comparison with other systems displaced by them.

## 534 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## OTHER USES OF ELECTRICITY IN MINING.

Describe other uses of electricity in mining that may be of value to be recorded to fully explain the present condition of the science and art.

## GENERAL ADVANTAGES ACCRUING FROM THE USE OF ELECTRICITY IN MINING.

Give results of experience with the use of electricity for mining operations with regard to the hygienic effect on the atmosphere, safety from accidental firing of gases, and general facilities and advantages. Please describe especially precautions used against accidental firing of gases and their effectiveness.

## SPECIAL SCHEDULE No. 150.—TELEGRAPH LINES USED BY STEAM RAILROAD COMPANIES.

Post-office; S. D.; E. D. ...., Special Agent or Enumerator.

The period to be covered by this return is the census year beginning June 1, 1889, and ending May 31, 1890. If, however, the fiscal year of the business covers a different period, the return may be for the fiscal year which most nearly conforms to the census year.

Period covered by this return, year ending ....., 1890.

*(Read carefully the explanatory notes, and examine all details of the entire schedule before commencing to fill it out. If in doubt about any point, write for further information.)*

Name of corporation.

Name and address of officer or employee with whom correspondence may be conducted regarding information required by the schedule:

Name.

Official designation.

Address.

Give name and address of the telegraph company *owning* the lines reported as "Leased" or "Controlled."

Owner of leased lines:

Name of corporation.

Address of corporation.

Owner of controlled lines:

Name of corporation.

Address of corporation.

## DESCRIPTION OF TELEGRAPH PLANT.

Electrical apparatus—operating instruments principally in use:

	Total number.
Morse sets .....	
Automatic Wheatstone sets .....	
Duplex instrument sets .....	
Phonoplex sets .....	
Printing instrument sets .....	
Quadruplex instrument sets .....	
Synchronous sets .....	
Quotation transmitters .....	
Quotation recorders .....	
	Total mileage of wires operated.
Morse system .....	
Wheatstone system .....	
Duplex system .....	
Phonoplex system .....	
Printing system .....	
Quadruplex system .....	
Synchronous system .....	

Batteries in use:

Names of batteries.	Number of cells of each kind.
Le Clanche batteries.....	
Bluestone or gravity batteries .....	
Dry batteries.....	
Carbon batteries.....	
Accumulator or storage batterie.....	
Other varieties of batteries (name):	
[5 blank lines.]	

Give list below of scientific instruments in use, specifying kind and number of each kind:

Scientific instruments, kind.	Number of each.
(a)	(a)

a Several blank lines are printed in schedule.

Give number of telegraph offices, number of employees, mileage of lines, and value of telegraph plant in each state and territory:

State.	No. of offices.	No. of employees.	Mileage of poles.			Mileage of wires.			Value of plant owned.
			Owned.	Leased.	Con- trolled.	Owned.	Leased.	Con- trolled.	
(a)									

a The name of each state and territory is printed in schedule.

## ANALYSIS OF TELEGRAPH EXPENSES.

Labor and wages:

NOTE.—Persons employed on commission and their earnings should be separately reported below. Wages paid should include board and rent when furnished as part compensation.

When an employee connected with the telegraph service also acts as station agent, clerk, or in any other capacity, only the proportion of his wages charged to operating telegraph account should be entered on this form. The word "Division" should be written opposite the item, to explain the amount of the charge.

Classes.	Average number employed during the year.	Total amount paid in wages during the year.
Telegraph superintendents .....		
Telegraph operators:		
Males .....		
Females.....		
Train dispatchers.....		
Line and repair men.....		
Commission work:		
Males .....		
Females.....		
Total.....		

## 536 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### Labor and wages—Continued.

Monthly rate of wages paid and average number of hands employed at each rate  
(not including those employed on commission work):

Rates per month.	Males above 16 years.	Females above 15 years.	Children.
Under \$20 .....			
\$20 and over, but under \$25 .....			
\$25 and over, but under \$30 .....			
\$30 and over, but under \$35 .....			
\$35 and over, but under \$40 .....			
\$40 and over, but under \$45 .....			
\$45 and over, but under \$50 .....			
\$50 and over, but under \$65 .....			
\$65 and over, but under \$75 .....			
\$75 and over, but under \$85 .....			
\$85 and over, but under \$100 .....			
\$100 and over, but under \$125 .....			
\$125 and over .....			

Average number of hours in the ordinary day of labor:

Superintendents and operators, hours per day.

Train dispatchers, hours per day.

Linemen and repair men, hours per day.

Cost of maintenance of telegraph lines and offices:

NOTE.—This account should embrace the cost of maintaining and repairing the telegraph lines owned by the company or for which it is responsible, including poles, wires, insulations, instruments, batteries, chemicals, and cups; also wages of employees engaged in keeping the lines in working condition.

District superintendent's salary and expenses.

Superintendents of construction, salary and expenses.

Managers, operators, clerks, office boys, messengers, and battery men.

Reconstruction, freight, and all other expenses.

Repairs, labor, freight, and all other expenses.

Other employees.

Total.

Miscellaneous office expenses:

Main and local battery material.

Stationery.

Office furniture, fixtures, and repairs on same.

Machinery and instruments and repairs on same.

Rent, fuel, and light.

Miscellaneous supplies and expenses.

Cost of material furnished for ordinary repairs.

Cost of material furnished for reconstruction.

Total.

### TARIFF RATE OF TELEGRAPH CHARGES.

Ordinary messages:

Number of free words allowed in address.

Number of free words allowed in date.

Number of free words allowed in signature.

Largest number of letters allowed in a word at one-word rate.

Tariff rates, ordinary messages:

First 10 words, full-rate messages: Lowest; highest.

Extra words, full-rate messages: Lowest; highest.

First 10 words, night-rate messages: Lowest; highest.

Extra words, night-rate messages: Lowest; highest.

Rate within state limits, full-rate messages.

Rate within state limits, night-rate messages.

Rate within square limits, full-rate messages.

Rate within square limits, night-rate messages.

Average area of squares.

Money transfer messages:

Give premium charged for transferring money.

Give limits of free delivery in towns of 5,000 inhabitants and under.

Give limits of free delivery in towns of over 5,000 inhabitants.

ANALYSIS OF TELEGRAPH INCOME.

Give total number of messages of each class, as stated below, sent during the fiscal year, and the gross amount of income from the same:

Full-rate messages sent: Total number; total income. (This item should include all messages not otherwise classified.)

Night-rate messages sent: Total number; total income.

Money transfer messages sent: Total number; total income.

Total amount of money transferred.

Premiums on money transferred: Total annual amount.

Press messages sent: Total number; total income.

Special press messages sent: Total number; total income.

Commercial news messages sent: Total number; total income.

United States Government messages sent: Total number; total income.

Signal service messages sent: Total number; total income.

Half-rate frank and free messages sent: Total number; total income.

Ocean cable messages sent to and received from foreign countries: Total number; total income.

Foreign land lines, messages sent to and received from foreign countries: Total number; total income.

Times service: Total income.

Private wires rented for press: Total mileage of single wire; total income.

Private wires rented for commercial use: Total mileage of single wire; total income.

Total gross receipts.

Deductions from income for moneys received as agent:

Paid to other lines.

Paid for special delivery.

Other line tolls for forwarded messages.

Refunded and uncollectible.

Other companies' portion of receipts.

Telephone charges on business received through telephone.

Total deductions.

Total net receipts.

MINES AND MINING.

[At the census of 1840 the inquiries relating to mines and mining were contained in a "Schedule of Mines, Agriculture, Commerce, Manufactures, etc.," the complete heading for which is reproduced under the heading of "Agriculture."

At the censuses of 1850, 1860, and 1870 the inquiries relating to mines and mining were contained in a schedule entitled "Products of Industry," comprehending manufactures, mining, and the fisheries, reproduced under the heading of "Manufactures."

At the censuses of 1880 and 1890 the special schedules relating to mines and mining called for a separate return for each establishment to which sent, and where the inquiries are tabular in form they have been so reproduced.]

CENSUS OF 1840.

[The subjoined inquiries relating to mines were contained in a "Schedule of Mines, Agriculture, Commerce, Manufactures, etc.," the complete heading for which is reproduced under "Agriculture."]

MINES.

Iron:

Cast iron:

Number of furnaces.

Tons produced.

Bar iron:

Number of bloomaries.

Tons produced.

Tons of fuel consumed.

Number of men employed, including mining operations.

Capital invested.

538 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Lead:

Number of smelting houses, counting each fire one.  
 Number of pounds produced.  
 Number of men employed.  
 Capital invested.

Gold:

Number of smelting houses.  
 Value produced.  
 Number of men employed.  
 Capital invested.

Other metals:

Value produced.  
 Number of men employed.  
 Capital invested.

Coal:

Anthracite:  
 Tons raised (28 bushels each).  
 Number of men employed.  
 Capital invested.

Bituminous:  
 Number of bushels raised.  
 Number of men employed.  
 Capital invested.

Domestic salt:

Number of bushels produced.  
 Number of men employed.  
 Capital invested.

Granite, marble, and other stone:

Value produced.  
 Number of men employed.  
 Capital invested.

CENSUS OF 1880.

SPECIAL SCHEDULES OF MINING.

COAL MINES.

1. Name of mine; name of place; county; state; name of owner; name of operator.
2. Kind of coal (define as fully as possible).
3. Maximum yearly capacity.
4. Average depth of workings.
5. Number of acres of coal lands worked and to be worked from mine.
6. Principal markets and distances.
7. Routes of shipment.
8. Freight rates.
9. Amount produced during year ending May 31, 1880—tons; value at mine.
10. State what kind of ton you use in this report, or, if you reckon by bushels, how many pounds to the bushel.
11. Average cost of a ton of coal on cars.
12. If no objection, please state yearly production of the mine in previous years, going as far back as you can with convenience.
13. What method of working?
14. Number, names, and thickness of seams worked.
15. Total available thickness worked.
16. Per cent of total in seams necessarily left when mine is worked out. What proportion of the amount left is left in pillars and supports and what otherwise?
17. Kind of entry (slope, drift, shaft).
18. Number of headings and total length of working face.
19. Royalty paid per ton.
20. Number of persons employed above ground: 16 years and above; under 16 years.  
 Number of persons employed below ground: 16 years and above; under 16 years.  
 Total employees.  
 Of whom miners number.  
 Other laborers.  
 Clerks, bosses, and administrative force.  
 Giving same total.

21. What was the total amount of wages paid to all persons employed about business of the mine during the year ending May 31, 1880?  
(NOTE.—It will often happen that two or more mines are worked and paid from one central office, but yet have distinct organizations and are reported on separate census schedules. In such cases, to avoid duplication or omission of the administrative force, be careful to include in the above enumeration only such proportion of the employees and wages of the central office as are fairly chargeable to the mine reported in this schedule.)
22. Months in operation during year ending May 31, 1880, reducing part time to full time.
23. If idle during any part of the year, what was the cause? and if for several reasons, as strikes, lockouts, water, light demand, fire, breakdowns, etc., give number of days idle from each cause.
24. Is a store kept in connection with the mine for supplying the miners with necessities?
25. Amount of capital invested in real estate.  
Amount in plant, equipment, and animals.  
Amount ordinarily used as working capital.
26. Total capital employed and invested in mine.
27. What is the value of materials used in mine during past year?
28. What is the total value of all machines?  
(NOTE.—The estimate of values is to be based on what the property would cost to replace in 1880. If the works are leased, their value should be estimated on same basis and included in this answer.)
29. Number of horses: Outside; inside; value.
30. Number of mules: Outside; inside; value.
31. Number of steam engines; value; horsepower.
32. Number of boilers; value; horsepower.
33. Amount of fuel consumed per hour—pounds.
34. Value of fuel per hour.
35. Number of cords of wood used annually for fuel (1879); where procured, value, what kinds are used, which are preferred.
36. Amount of unsawed lumber used for other purposes than fuel; where obtained, its value or cost if purchased.
37. What quantity and value of sawed lumber is used annually, and of what kinds?
38. What is the quantity and value of charcoal used annually? The charcoal made from what kinds of wood is preferred?
39. If water power is used, state number of wheels; kinds; cost; diameter; width; total horsepower.
40. Name of stream; available head.
41. Kinds of explosives used; pounds per year; total value.
42. Number of machines used for hoisting; kind; inclination of shaft.
43. Maximum height lifted.
44. Average height lifted.
45. Maximum daily capacity—tons.
46. Weight of material raised yearly—tons.
47. Kind and shape of cable.
48. Average life of cable in tons raised 100 feet.
49. Average working speed of cable in feet.
50. Ordinary load, single lift, including cage and car.
51. Cost of hoisting apparatus.
52. How do the miners enter and leave the mine?
53. Is there more than one egress?
54. Number of mine locomotives used; value; number of pit cars; value; miles of underground track; miles of outside track.
55. Method of ventilation (furnace, mechanical or natural).  
If mechanical, name kind of machine; vacuum or plenum; dimensions of fan; cost; speed per minute; pressure or vacuum produced in inches of water; capacity in cubic feet of air per minute; horsepower; ordinary duty cubic feet of air; extent of workings ventilated; yearly cost of ventilating.
56. Number of pumps or other apparatus for drainage; kinds; dimensions of water cylinders; dimensions of steam cylinders; water pressure at pumps; steam pressure at pumps; number of lifts; heights lifted; daily capacity—gallons; average daily work—gallons; average working speed; horsepower used; average daily cost of fuel; repairs; attendance; number of gallons raised one foot high for 100 pounds coal burned ordinary duty.

# 540 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

57. Number of breaking machines; kind; cost; horsepower used; tons delivered from mine yearly; amounts and value of different sizes marketed from breaker.

(NOTE.—If breaker receives coal from several mines, give names of mines and how much received from each.)

58. Size of smallest mesh.
59. Amount of culm or slack produced.
60. Amount used for fuel in establishment—tons.
61. Amount sold—tons.
62. Have you ever marketed patent fuel? What process? Amount and value of same past year.
63. Are any coal-cutting machines used? If so, give number; kind; cost; motive power; horsepower used; equivalent of work done in hand labor and relative cost.
64. How many days run during past 12 months?
65. Number of power drills; kind; purpose; motive power; where used; cost; horsepower used; cost of work compared to hand labor.
66. If washing machinery used, state object of washing; motive power; horsepower used; amount subjected to washing; waste per ton; increase of value per ton.
67. Destination of washed coal.
68. Cost of washing per ton.

Classified list of accidents happening to persons engaged about the business of the mine during the year ending May 31, 1880:

Effects.	Causes.				
	Fall of roof.	Accidents from machinery.	Explosions of fire-damp.	Explosions of powder and other explosives.	Other causes.
Number of deaths.....					
Number of persons totally disabled from manual labor.....					
Number of persons disabled longer than one week.....					

69. What is the average period of temporary disability?
70. What employment is considered as involving the greatest hazard?
71. Source of water supply.
72. Have any fires occurred above ground since 1870?
73. Give date of each fire.
74. Cause of each fire.
75. Amount of total loss by each fire.
76. Amount of insurance carried on the property burned at time of fire.
77. Estimated value of property damaged at date of fire.
78. Amount of insurance paid on each loss.
79. What facilities have you for extinguishing fires?
80. Value of underground construction and perishable property. Is there any insurance on same? If so, state kind of property, value, amount of insurance and rate.
81. Have any fires occurred underground since 1870?
82. Date of each fire and class of property burned.
83. Where did fire originate?
84. Cause of each fire.
85. Length of time it burned.
86. Means used for extinguishing it.
87. Estimated value of the property damaged; amount of total loss; amount of insurance paid, if any.

## 88. Facilities for extinguishing underground fires.

Insurance.	Material.	Value if built in 1879.	Assessed value on tax roll.	Insurance carried.	Rate per cent of premium paid.	Power used.	Value of machinery.	Amount of insurance on machinery.
Machine and repair shops .....								
Office buildings .....								
Head works, pump-house and ventilator .....								
Breakers .....								

## Details of boilers:

Numbers.	H. P.	Kind.	Dimensions.	Grate surface.	Kind of fuel.	Average amount per hour for ordinary purposes.	Cost of fuel.	Value of boiler.	Ordinary working pressure.	Point of blow-off.	Height, shape, and dimensions of stack.	If artificial draft, how made.
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

## Details of engines:

Numbers.	Kind.	Diameter of cylinder in inches.	Stroke in inches.	If expansion-valve used, state cut-off from beginning of stroke, inches.	Average working pressure.	H. P. estimated.	Value.	Purpose or use.	Cost of attendance, 10 hours.	Cost of repairs.	Cost of lubricant.
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

## FARMERS' COAL DIGGINGS.

(Intended for small diggings worked by farmers or others and producing less than \$500 worth annually.)

State; county; name of place; name of owner of land; name of operator of digging.  
Kind of coal.

Thickness of seam.

Number of full months in operation during the year ending May 31, 1880.

Average number of persons employed during that time.

Amount of wages paid or value of your time.

How many pounds to the ton, or to the bushel?

Amount of coal produced during the year ending May 31, 1880.

Value of the same at the digging.

How much royalty do you pay?

Do you mine to sell in the neighborhood, or for your own use?

When you are unable to give exact figures, please estimate, or say "about."

## COPPER MINES.

Name of mine; name of place; county; state; name of owner; name of operator.

Kinds of ore.

Open-cut or under-ground working.

Average depth of working.

Maximum yearly capacity of mine in pounds of metal.  
 Yearly production of ore for year ending May 31, 1880, tons; amount of concentrated mineral, tons; amount of metal in ingots, pounds; value.  
 Average per cent of metal in concentrated mineral.  
 Yield of past years, as far as it can be given, in pounds of metal, and prices.  
 Number of pounds in ton as you use it.  
 Principal markets.  
 Distances, routes of shipment, and freight rates.  
 Please state as far as possible the principal uses to which your metal is applied.  
 If you have any analyses of your ingot, please give copy and chemist's name.  
 Amount and cost of labor in hand-sorting your ores per ton of ore raised.  
 What method of crushing used.  
 Kind and number of stamps.  
 Number of rollers.  
 Weekly capacity of mill in tons of ore treated—tons.  
 Kind of separators used.  
 Proportion of mineral obtained by hand separation.  
 Per cent of metal in same.  
 Proportion obtained by machine separators.  
 Per cent of metal in same.  
 Proportion obtained from slimes.  
 Per cent of metal in same.  
 What method of treating slimes used.  
 Average per cent of metal in your ore as mined.  
 If you produce any other metal than copper, state amounts and values for past year.  
 State selling price of your mineral per unit, and point where price obtained.  
 Average cost of sinking shaft per yard.  
 Average cost of driving per yard.  
 Average cost of stoping per yard.  
 Average cost of ton of ore at mill.  
 Average cost of preparing ton of ore for furnace.  
 At what do you estimate the cost of producing a pound of copper, excluding questions of interest, repairs, deterioration, etc.?  
 [Inquiries numbered 20 to 26 and 29 to 49, inclusive, in special schedule relating to "coal mines" are common to this schedule and are not here reproduced.]  
 Maximum number of hoists per hour.  
 Ordinary load, single lift, including car and cage.  
 Cost of hoisting apparatus.  
 How do the miners enter and leave the mine?  
 Number of pumping engines and other machines for drainage.  
 Dimensions of steam cylinders.  
 Dimensions of water cylinders.  
 Working pressure, steam; working pressure, water; number of lifts; heights lifted; capacity daily; average daily work.  
 Number of strokes per minute, ordinary work; horsepower used; value of pump.  
 Average daily cost of fuel; repairs; attendance; kind of fuel.  
 Number of gallons raised 1 foot high for 100 pounds of coal burned. If wood used, same for 1 cord of wood burned.  
 Total number of machines for all purposes; kinds; total value.  
 Value of materials used in mine for year ending May 31, 1880.  
 Power drills: Number; kind; purpose; where used; motive power; value.  
 Rate of work as compared with hand drilling. If convenient, please answer this in detail for various depths and materials.  
 Classified list of accidents happening to persons engaged about the business of the mine during the year ending May 31, 1880.  
 Fire insurance.

[Inquiries under these two headings, and, in addition, inquiries numbered 69, 71 to 82, 84 and 86 to 88, inclusive, in special schedule relating to "Coal Mines" are common to this schedule and are not here reproduced.]

Details of boilers.  
 Details of engines.

[Inquiries under these two headings in special schedule relating to "Coal Mines" are common to this schedule and are not here reproduced.]

## IRON MINES.

Name of mine; name of place; county; state.  
 Name of owner.  
 Name of operator.  
 Kind of ore.  
 Open-cut or underground working.  
 Average depth of working, if by shafts.  
 Maximum yearly capacity—tons.  
 Rate of royalty paid.  
 Total yield of mine to date—tons.  
 Average thickness of stripping, if open cut.  
 Proportion of marketable ore to whole amount mined.  
 Total marketable product in ore for year ending May 31, 1880, including amount  
 smelted by yourself—tons; value.  
 Amount smelted during year by local furnaces including your own—tons.  
 Amount shipped during year—tons.  
 Amount awaiting shipment—tons.  
 Names and addresses of sales agents?  
 During what months do you ship ore?  
 How many pounds in the ton, as you use it in this report?  
 Principal markets.  
 Amount sent to each market.  
 Routes of shipment.  
 Freight rates from mines to distributing points, separating water and rail rates.  
 Product for previous years, as far back as possible.  
 What method of sorting used?  
 How many and what grades of ore?  
 If any machines used in sorting, state kind; cost; horsepower?  
 Per cent of waste to whole amount treated.  
 Cost of treating, per ton.  
 For the manufacture of what kinds of pig and wrought iron are the different kinds  
 and grades of ore mined by you used? Please answer this in detail, and give the  
 reasons for the adaptation of your ore to special purposes, if possible, and also the  
 per cent of metallic iron?

[Inquiries numbered 20 to 27 and 42 to 49, inclusive, in special schedule relating to "Coal Mines" are common to this schedule and are not here reproduced.]

Maximum number of hoists per hour.  
 Ordinary load, single lift, including car.  
 Cost of hoisting apparatus.  
 How do the miners enter and leave the mine?  
 Aggregate value of all machinery.  
 Number and kinds of pumps, pumping engines, or other machines for drainage.  
 Dimensions of steam cylinders.  
 Dimensions of water cylinders.  
 Working pressure of water at pumps.  
 Working pressure of steam at pumps.  
 Number of lifts; heights lifted; daily capacity—gallons; average daily work—gallons;  
 number of strokes per minute ordinarily; horsepower ordinarily used; average daily  
 cost; Fuel; repairs; attendance.  
 Kind of fuel.

[Inquiries numbered 35 to 38, inclusive, in special schedule relating to "Coal Mines" are common to this schedule and are not here reproduced.]

Number of gallons raised 1 foot high for 1 pound of coal burned.  
 Number of gallons raised 1 foot high for 1 cord of wood burned.

[Inquiries numbered 29 to 34, inclusive, in special schedule relating to "Coal Mines" are common to this schedule and are not here reproduced.]

Kinds of explosives used, and purposes; amounts used yearly; cost.  
 Cost per ton of ore thrown down.  
 Cost per ton of ore ready to load.  
 Power drills: Number; kind; motive power; horsepower used; value.  
 Rate of work as compared with hand drilling. If possible answer this question in  
 detail.  
 Classified list of accidents happening to persons engaged about the business of the  
 mine during the year ending May 31, 1880.  
 Insurance.

## 544 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

[Inquiries under these two headings, and, in addition, inquiries numbered 69 to 88, inclusive, in special schedule relating to "Coal Mines" are common to this schedule and are not here reproduced.]

Details of boilers.

Details of engines.

[Inquiries under these two headings in special schedule relating to "Coal Mines" are common to this schedule and are not here reproduced.]

### PRODUCTION OF IRON ORE.

(To be filled by users of ore.)

**NOTE TO AGENT.**—It is intended by this schedule to obtain a return of all the iron ore mined on a small scale, to which the regular schedules are not applicable. Be careful to obtain the names and residences of the producers, in order that, if a return should be received from them also, the duplication may be corrected in this office.

Name of furnace; state; county; post-office.

Amount of iron ore mined by furnace company between June 1, 1879, and June 1, 1880—tons of 2,000 pounds; kind; value; per cent of metallic iron.

Estimate of value of tools and machinery invested in mining operations.

Estimate of value of labor in producing and bringing to furnace above ore during above year.

County where produced; state.

**NOTE.**—If ore is raised in different counties, make use of separate blank for each county.

Ore bought by furnace same year:

Names of persons from whom ore was bought, and by whom it was mined during same year.	Amounts bought from each, in tons of 2,000 pounds.	Kinds of ore.	Geological formation.	Value at furnace as paid.	Per cent of metallic iron.	County where ore is raised or mined.	State.
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)

*a* Several blank lines are printed in schedule.

**Remarks:** Give, if possible, an estimate of the amount of labor in raising or digging the above ore, the labor of hauling and delivering, and the amount of capital invested in tools, and some account of the method.

### LEAD AND ZINC MINES.

Name of mine; name of place; county; state; name of owner; name of operator.

Kinds of ore.

Open-cut or underground working.

Average depth of workings—feet.

Rate of royalty paid.

Amount of lead ore raised past year—tons.

Amount of zinc ore raised past year—tons.

Amount of other kinds of ore raised past year—tons.

Where is your lead ore reduced?

Where is your zinc ore reduced?

What is the maximum yearly capacity of the mine in pounds of various metals?

What was the production for the year ending May 31, 1880, in pounds of each metal, and value?

Total yield of mine to date, in pounds of each metal, each year since 1870.

How many pounds in the ton as you use it in this report?

What method of dressing ore do you adopt?

If by stamps or rollers, state number; kind; value.

What kind of separators?

State relative proportions of each mineral obtained by cobbing:

By separators.

By dressing slimes.

What method of dressing slimes.

[Inquiries numbered 20 to 27, and 29 to 41, inclusive, in special schedule relating to "Coal Mines" are common to this schedule and are not here reproduced.]

Number of power drills; kind; purpose; value.  
 Rate of work as compared with hand labor.  
 Number of hoisting machines; kind; power used; height of lift; weight raised yearly.  
 Number of pumps and pumping engines; kind; value; height of lift.  
 Capacity daily—gallons; average work daily—gallons.  
 Total number of machines of every kind; value.  
 Classified list of accidents happening to persons engaged about the business of the mine during the year ending May 31, 1880.  
 Fire insurance.

[Inquiries under these two headings and, in addition, inquiries numbered 69 to 88, inclusive, in special schedule relating to "Coal Mines" are common to this schedule and are not here reproduced.]

Details of boilers.

Details of engines.

[Inquiries under these two headings in special schedule relating to "Coal Mines" are common to this schedule and are not here reproduced.]

### SPECIAL SCHEDULES FOR PETROLEUM.

#### PETROLEUM, INCLUDING ITS USES AND ARTICLES MANUFACTURED THEREFROM.

Has the state of..... a statute regulating the sale or use of petroleum, or articles manufactured therefrom?

Has the city of..... an ordinance regulating the sale or use of petroleum, or articles manufactured therefrom? If so, please give the date of the statute or ordinance.

What fire test does either, or both, require for illuminating oils?

Please state briefly their requirements respecting the use of naphtha, gasoline, and similar articles.

Please state briefly their requirements respecting the storage of crude petroleum.

Please state briefly their requirements respecting the storage of kerosene or illuminating oils.

Please state briefly their requirements respecting the storage of naphtha, gasoline, or similar substances.

Please state briefly how inspectors are appointed and qualified.

Are lanterns or lamps in which kerosene, naphtha, or gasoline is burned used for lighting streets?

How many manufactories of gas for public use, in which naphtha is employed, are in operation?

How many street lamps are lighted from such gas?

How many establishments for carbureting air by gasoline for public use are in operation?

How many street lamps are supplied from such establishments?

Please state how the public buildings of the city are lighted.

Please state how many street lamps in the city are lighted with coal gas.

How many from gas wells?

How many with naphtha used in an apparatus attached to each lamp-post?

How many with gasoline used in an apparatus attached to each lamp-post?

How many with other illuminating material?

Please state name of patentee or manufacturer of apparatus in which naphtha or gasoline is used in the manufacture of gas used in the city; and give brief description of same.

Please give a brief description of any accidents that may have occurred during the year from the storage, manufacture, or use of petroleum, or any articles manufactured therefrom.

How many such accidents resulted in fire?

How many such accidents resulted in death? Number; deaths.

How many such accidents were legally investigated?

How many such accidents resulted from violation of laws regulating the sale or use of petroleum, or articles manufactured therefrom?

How many indictments were had under the statute?

How many indictments were had under the ordinance?

How many convictions were had under the statute?

How many convictions were had under the ordinance?

Please state the particular provisions of the statute or ordinance under which the convictions were obtained, and the penalties incurred.

## 546 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

How many of the above enumerated accidents resulted from explosions of kerosene or illuminating oils?

How many from explosions of other materials manufactured from petroleum?

How many deaths resulted from such explosions?

Please state brands and fire-test of the oils that exploded; brand of oil; fire-test, degrees Fahrenheit. (a)

How many accidents legally investigated were proved to have been the result of carelessness?

How many accidents resulted from the proper use of petroleum, or articles manufactured therefrom, that in all respects conformed to the requirements of the statute or ordinance?

Please state the total amount of loss by fires that have resulted from the use of petroleum, or articles manufactured therefrom.

Please state the amount of such loss by fires resulting from violations of legal enactments respecting such use; value.

Please state the total amount of loss by fire resulting from destruction of crude petroleum on storage, and cause of fire.

Cause of fire.

Loss on petroleum; value.

Additional loss; value.

Please state the total amount of loss by fire resulting from destruction of articles manufactured from petroleum while on storage:

Cause of fire.	Articles consumed.	Loss on articles consumed.	Additional loss.	Total loss by fire.
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

Please give the address of parties doing business in the city, storing petroleum outside the city limits.

Please give the address of such parties storing illuminating oils, naphtha, or gasoline outside the city limits.

Please state the largest amount of petroleum, or articles manufactured therefrom, stored at any one time during the year within the city limits.

Name of article.	Kind of package.	Amount in barrels.
(a)	(a)	(a)

a Several blank lines are printed in schedule.

Please give a brief description of the cause, result, and amount of loss attending any fires in the city occasioned by petroleum, or any articles manufactured therefrom, during the last ten years.

Are the state and municipal inspectors efficient and active in securing or enforcing compliance with the provisions of the law under which they were appointed?

Are any so-called "safety oils" sold in the city? If so, state name of the different brands.

Please state any changes in existing laws, either national, state, or municipal, relating to petroleum, or articles manufactured therefrom, that in your judgment would secure additional safety from fires or other accidents.

Remarks.

### MANUFACTURED PRODUCTS OF PETROLEUM.

Location of refinery: State of .....; County of .....; City or town of .....

Name of corporation, if a corporation.

Name of president; post-office address.

Name of treasurer; post-office address.

Name of owner, if privately owned; post-office address.

a Repeated five times in printed schedule.

- Name of agent or superintendent; post-office address.  
 Capital (real and personal) invested in the business.  
 The greatest number of hands employed at any one time during the year.  
 Average number of hands employed: Males above 16 years; females above 15 years; children and youths.  
 Number of hours in the ordinary day of labor.  
 Are hands employed constantly both day and night? If so, state—  
     Average number of hands employed by day.  
     Average number of hands employed by night.  
 Average day's wages for a skilled workman, by day.  
 Average day's wages for a skilled workman, by night.  
 Average day's wages for an ordinary laborer, by day.  
 Average day's wages for an ordinary laborer, by night.  
 Average day's wages for a cooper; tinsmith.  
 Total amount paid in wages during the year.  
 Number of months in operation.  
 Number of months idle.  
 Materials used:  
     State number of gallons and value of crude petroleum used during the year.  
     State number of gallons received in barrels.  
     State number of gallons received in tanks.  
     State number of gallons received by pipe lines.  
     State percentage of water in crude petroleum used.  
     State number of gallons "residuum" used.  
     State number of gallons distillate used.  
 Fuel used:  
     Number tons and value of anthracite coal—tons; value.  
     Number tons and value of bituminous coal—tons; value.  
     Number cords of wood—cords; value.  
     Number bushels of coke—bushels; value.  
     Number gallons and value of naphtha—gallons; value.  
     Number gallons and value of residuum—gallons; value.  
 Chemicals used:  
     Number tons and value of sulphur—tons; value.  
     Number tons and value of sulphuric acid—tons; value.  
     Number tons and value of sulphuric acid recovered—tons; value.  
     Number tons and value of soda ash used—tons; value.  
     Number tons and value caustic soda used—tons; value.  
     Number tons and value of caustic soda recovered—tons; value.  
     State name and value of all other chemicals used in the manufacture of petroleum—name; value.  
 Cooperage material used:  
     Number and value of barrels made—No.; value.  
     Number and value of barrels purchased—No.; value.  
     Number and value of tin cans made—No.; value.  
     Number and value of tin cans purchased—No.; value.  
     Number and value of packing cases made—No.; value.  
     Number and value of packing cases purchased—No.; value.  
     State average number of coopers employed—No.  
     State average number of tinsmiths employed—No.  
     State value of all other materials used—value.  
     Total value of all material heretofore named (including all others used).  
 Products by distillation of petroleum:  
     State number of gallons and value of rhigolene produced, or other substances having a specific gravity above 87° Baumé—gallons; value.  
     State number of barrels and value of gasoline produced—barrels; value.  
     State the different grades and specific gravity of naphtha produced in barrels, and value:  
         Grade; specific gravity; barrels; value. (b)  
     State number of barrels and value of distillate treated, with specific gravity and fire-test—number of barrels; specific gravity; fire-test, degrees Fahrenheit; value.

---

*b* Repeated four times in printed schedule.

548 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Products by distillation of petroleum—Continued.

Please state brands of kerosene or illuminating oil manufactured, giving specific gravity, fire-test, number of barrels produced, and value thereof:

Brand of oil.	Specific gravity.	Fire-test, degrees Fahrenheit.	Number of barrels.	Value.
(a)	(a)	(a)	(a)	(a)

<sup>a</sup> Several blank lines are printed in schedule.

State number of barrels, specific gravity, fire-test, and value of mineral, sperm, or other illuminating oil having a fire-test above 200 degrees Fahrenheit produced—No. barrels; specific gravity; fire-test; value.

State different grades, specific gravity, number of barrels, and value of paraffine oils produced:

Grade; specific gravity; No. barrels; value. (*b*)

State specific gravity, number of barrels, and value of Merrill's deodorized lubricating oils produced—specific gravity; No. barrels; value.

State number of pounds and value of paraffine wax produced—pounds; value.

State number of pounds and value of paraffine candles produced—pounds; value.

State number barrels and value of residuum—barrels; value.

State value of all products other than heretofore named—value.

Total value of all productions—value.

State source from whence crude oil is procured, and its specific gravity.

What disposition is made of residue from treatment with sulphuric acid?

State quantity of such residue in tons.

What disposition is made of residue from treatment with caustic alkali?

State quantity of such residue in tons.

In what manner is rhigolene packed for shipping?

State average size of gasoline barrels, in gallons.

State average size of naphtha barrels, in gallons.

State average size of kerosene barrels, in gallons.

Amount of total product of gasoline exported to foreign countries, in barrels.

Amount of total product of gasoline exported to foreign countries, in cans.

Amount of total product of naphtha exported to foreign countries, in barrels.

Amount of total product of naphtha exported to foreign countries, in cans.

Amount of total product of kerosene exported to foreign countries, in barrels.

Amount of total product of kerosene exported to foreign countries, in cans.

Amount of total product of mineral sperm exported to foreign countries, in barrels.

Amount of total product of mineral sperm exported to foreign countries, in cans.

Amount of total product of paraffine oil exported to foreign countries, in barrels.

Amount of total product of paraffine oil exported to foreign countries, in cans.

Amount of total product of deodorized paraffine oil exported to foreign countries, in barrels.

Amount of total product of deodorized paraffine oil exported to foreign countries, in cans.

Amount of total product of Merrill's deodorized paraffine oil exported to foreign countries, in barrels.

Amount of total product of Merrill's deodorized paraffine oil exported to foreign countries, in cans.

Amount and fire-test of oil manufactured expressly for export—gallons; fire-test.

Amount of gasoline for home consumption packed in cans—gallons.

Amount of naphtha for home consumption packed in cans—gallons.

Amount of illuminating oil for home consumption packed in cans—gallons.

Amount of lubricating oil for home consumption packed in cans—gallons.

Amount of fire-test of oil manufactured for sale in states which have no laws regulating the sale of illuminating oils.

Do you finish your illuminating oil by distillation or by treatment?

Power used in manufacture:

State No. of boilers; No. of engines; and horsepower produced.

<sup>b</sup> Repeated four times in printed schedule.

**Buildings and machinery:**

What is the value of your buildings and of your machinery, separately? Buildings; machinery.

Number of buildings included in refinery.

Material of which buildings are constructed.

Has any fire occurred in your refinery? If so, state—No.; cause of fire.

Total loss caused by fire.

Please state the number and character of any accidents (other than by fire) that may have occurred involving a loss of more than \$500—number of accidents; total loss; value.

**MATERIALS MANUFACTURED FROM PETROLEUM USED ON RAILROADS  
IN THE UNITED STATES.**

Please state how many tank cars for transporting crude or refined petroleum are owned by the railroad you represent—Number; value.

Please state how many barrels of crude petroleum have been used by your road for lubricating during the year—Number; value.

Please state how many barrels of crude petroleum have been used for all other purposes by your road during the year—Number; value.

Please state how many barrels of reduced petroleum have been used by your road during the year—Number; value.

Please state how many barrels of graphite or plumbago oils have been used by your road during the year—Number; value.

Please state how many barrels of paraffine lubricating oils have been used by your road during the year—Number; value.

Please state how many barrels of kerosene or illuminating oils, having a fire-test below 120° Fahrenheit, have been used by your road during the year—Number; value.

Please state how many barrels of "high-test" illuminating oil, having a fire-test between 150° and 175° Fahrenheit, have been used by your road during the year—Number; value.

Please state how many barrels of "mineral sperm" or other illuminating oils, having a fire-test above 250° Fahrenheit, have been used by your road during the year—Number; value.

Please state how many pounds of paraffine candles have been used by your road during the census year—Number; value.

Please state the number, cause, and aggregate loss occasioned by fires in which crude petroleum or articles manufactured therefrom were destroyed while in transit over your road during the census year, giving details as minutely as possible. (Paste in a sheet, if necessary.)

Remarks.

**PRECIOUS METALS.**

**SCHEDULE A.—METALLIC MINES.**

Reported by .....; No. ....

Name; State or Territory; County; District.

**Position:**

1. Topographical (considerable detail is required).
2. Position relatively to town.  
Position relatively to mills or works.
3. Position relatively to lines of communication.
4. Altitude referred to sea level.  
Altitude referred to nearest important valley (give name).

**Ownership:**

5. Name of firm or company.  
Main office address.  
Capital stock.  
Number of shares.  
Par value.  
Quotation June 1, 1880.  
Working capital.  
Name of superintendent.
6. Dimensions and areas of mining property.  
Nature of title.  
Date at which the property came into present ownership.
7. Particulars of any outside real property or company (as wood ranches, etc.).

## Geological data:

8. Character of outcrop.  
Character of the deposit or ore-bearing formation (whether a vein, impregnation, bedded mass, etc.).  
Dip and strike of ore-bearing formation.
9. Dimensions of deposit so far as known.  
Occurrence of ore in the ore-bearing formation (e. g., on the foot wall, in irregular lenticular bodies, etc.)
10. Ore bodies, their size, distance below the surface, etc.  
What proportion of the ore-bearing formation has been productive?
11. Country rock, hanging wall, description (specimens).  
Country rock, foot wall, description (specimens).
12. Fossils at or near mines (send specimens, with minute description of position, etc.).
13. Character of the country rock, hardness.  
Tendency to swell.  
Wet or dry (distinguish foot and hanging).
14. Faults in the vein (give amount and direction of displacement where possible).
15. Mineralogical character of the ore (specimens).  
Physical character of ore.
16. Nature of the gangue (specimens).
17. Quantity of water entering the mine per hour, in gallons. (a)  
Depth of the water level.  
Is there any notable change in the character of the ore at the water level?
18. Temperature at various depths.
- Development:
  19. Is the mine opened by tunnel, shaft, or incline?  
Position of tunnel or shaft relatively to croppings.  
Dimensions of tunnels or shafts.
  20. Greatest depth of workings (vertical).  
Greatest horizontal development of workings.  
Total length of shafts.  
Total length of galleries and tunnels.  
Total length of winzes.  
Customary grade of galleries.
- System of working:
  21. Character of prospecting work (whether by galleries or drills).  
Does prospecting form a regular part of the system of workings?  
Amount of prospecting and system pursued.
  22. Method of stoping (overhand, underhand, crosscutting, etc.).
  23. Minimum thickness of veins worked.  
Character of ground (swelling or not, etc.).  
Proportion of galleries timbered.
  24. Whether power drills are used.  
If so, state number used, their kind and manufacturer.
  25. Kinds of powder used.  
Circumstances under which each is used.
  26. Mean volume of one ton of ore in place.  
Mean volume of one ton of ore broken.  
Weight and volume of a car full of coal.  
Mean volume of a ton of waste in place.  
Mean volume of a ton of waste broken.
  27. Is underground transportation effected by men, animals, or machinery?  
Give details as to number of men or animals, or system of machinery, as far as possible.
  28. Character and amount of dead work done during the year.  
Amount of waste raised during the year.  
Number of tons of water raised during the year.  
Mean depth from which ore has been raised during the year.  
Mean depth from which waste has been raised during the year.  
Mean depth from which water has been raised during the year.
- Accidents:
  29. Number of men fatally injured during the year.  
Number of men disabled above one week.

---

<sup>a</sup>One miner's inch may be taken at 2,250 gallons.

## Accidents—Continued.

## 30. Cause of accidents:

Cause.	Men killed.	Men injured.
Caving, fall of roof, etc.....		
Premature explosion of powder.....		
Falling of cages.....		
Overwinding.....		
Falls unconnected with hoisting machinery.....		
Other causes.....		

## Plant:

31. Hoisting engines, number in use.  
Character (vertical or horizontal; whether coupled; with or without fly wheel).  
Dimensions of drum.  
Power of hoisting engines.
32. Pumping engines, number, and number in use.  
Character and manufacturer.  
Power of pumping engines.  
How much of the time does the pump ordinarily run?  
Capacity per hour.
33. Air compressors, number, and number in use.  
Character and manufacturer.  
Power.  
Capacity.  
To what distance is air conveyed?
34. Other engines than those for hoisting, pumping, and compressing; their number, purposes, character, and power.
35. Boilers, number, and number in use.  
Character and sizes.  
Style of grate.
36. Hoisting cables, wire or hemp.  
Flat or round.  
Size of cable.  
Average load hoisted, including cage.  
Average duration of a cable.  
Total number of tons hoisted on one cable.  
How often are cables inspected?  
Are cables mended?  
Height of sheaves above shaft.  
Diameter of sheaves.
37. Is hoisting effected on cages, in buckets, or skips?  
Are safeties used to provide against falling?  
Are safeties used to provide against overwinding?  
If so, state system of safeties.  
Are pumps used? If so, state kind.  
And capacity per hour.  
If Cornish pumps, state length of rod.  
And number and weight of counterbalances.
38. How are signals given (by bell, telegraph, or telephone)?
39. To what depth can operations be carried with the present plant?  
For what interval of depth was the plant constructed?  
Total cost of plant in place (including freight).
40. Consumption of labor, power, and material:  
Table of employees, wages, and shifts:

Employees.	Average number employed.	Length of shift.	Wages per shift.
Miners.....			
Surface workmen.....			
Foremen.....			

Number of staff (all employees not engaged in manual labor).  
Aggregate salaries of staff per year.

552 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Consumption of labor, power, and material—Continued.

41. Is sinking, driving, stoping, or other work done on contract?  
Explain system in detail.  
Equivalent of contract work in day labor.
42. Total number of hours' work done during the year (calculated as if done by one man).  
Total sum paid on labor account (exclusive of staff) during the year.  
How many hours a day is the mine worked?  
Total number of days on which the mine has been in active operation during the year.
43. Total horsepower of engines.  
Total quantity of water fed boilers during the year.  
Pressure of steam.  
Quantity of fuel burned under boilers, and its character (if wood, ascertain weight per cord and kind of wood).
44. If fuel is used for other purposes, state them and the amount used.
45. Table of supplies consumed, and their cost:

Supplies.	Unit.	Quantity consumed during the year.	Price per unit.	Total cost.
Fuel .....	cord			
Timber.....	ton			
Iron.....	board feet			
Steel.....	pounds			
Candles.....	pounds			
Giant powder.....	pounds			
Black powder.....	pounds			
Other powder.....	pounds			

46. Average cost of sinking shafts per foot (with dimensions).  
Average cost of running drifts per foot (with dimensions).  
Cost of mining per ton ore.  
Total cost of operations before the mine became productive.

Production:

47. Table of production:

	Year ending May 31, 1880.	Month of June, 1879.	Month of June, 1880.
Total number of tons produced during the .....			
Average assay contents in.....			
Average assay contents in.....			
Average assay contents in.....			

48. Minimum contents of ore extracted.  
Working results of treatment of ore.  
Production of former years, if attainable.  
Total production up to June 1, 1879.  
If silver is estimated in dollars, state whether the market value or mint value (1 ounce=\$1.2929) is assumed.
- Disposition of ore:
49. Mill or works at which the ore is treated.  
Do these mills or works belong to the mining company?  
If the ore is sold, state average price per ton.  
Total received for ore during the year.
50. Method of transporting ore to mill, works, or market.  
Cost of transportation per ton.  
Who pays for transportation?
51. Date of the commencement of mining operations.  
Date at which the mine first became productive.

SCHEDULE B.—COAL MINES.

Reported by .....; No. ....  
Name; State or Territory; County; District.

[Inquiries numbered 1 to 6, inclusive, in Schedule A—Metallic Mines, are common to this schedule and are not here reproduced.]

Particulars of any outside real property of company.

Geological data:

Character of outcrop.

Number and thickness of seams.

Overlying rock, description (specimens).

Underlying rock, description (specimens).

Fossils in coal or country rock (send specimens, with minute description of position, etc.).

Shape and area of basin.

Faults and folds (giving direction of main axis and amount of displacement of faults).

Character of coal (anthracite, bituminous, or lignite; coking or noncoking).

Associated minerals (clay, iron ore, pyrites, mineral resins, gypsum. A full reply).

Temperature of the mine at various depths.

Whether the rock is wet or dry (distinguish roof and floor).

Quantity of water entering the mine per hour in gallons.

What is the water level?

Is there any notable change at water level?

Development:

Is the mine opened by tunnel, shaft, or incline?

Position of tunnel or shaft relatively to basin and croppings.

Dimensions of tunnels or shafts.

Greatest depth of workings (vertical).

Greatest horizontal development of workings.

Total length of shafts.

Total length of galleries and tunnels.

Total length of winzes.

System of working:

Character of prospecting work (whether by galleries or drills).

Does prospecting form a regular part of the system of working?

Amount of prospecting and system pursued.

System of working seams (by pillars and stalls, panel work, etc., described in detail).

Minimum thickness of seams worked.

Proportion of coal left standing.

Character of ground (swelling or not, etc.).

Proportion of galleries timbered.

Occurrence of fire-damp.

Use of safety lamps.

Occurrence of other gases.

Whether coal-cutting machines are used.

If so, state number used, their kind, and manufacturer.

Kinds of powder employed.

Circumstances under which each is used.

Mean volume of 1 ton of coal in place.

Mean volume of 1 ton of coal broken.

Weight and volume of a mine carload of coal.

Weight of an empty car.

[Inquiries numbered 27 to 41, inclusive, in Schedule A—Metallic Mines, are common to this schedule and are not here reproduced. In this schedule "explosions of gas" is given as a cause of accident. In addition to the causes specified under inquiry 30 in the special schedule relating to metallic mines.]

Consumption of labor, power, and material:

Total number of hours' work done during the year (calculated as if done by one man).

Total sum paid on labor account (exclusive of staff) during the year.

[Inquiries numbered 43 to 46, inclusive, in Schedule A—Metallic Mines, are common to this schedule and are not here reproduced.]

Production:

Total number of tons produced in year ending June 1, 1880; month of June, 1879; month of June, 1880.

Proportion of slack produced.

Production of former years, if attainable.

Total production up to June 1, 1879.

## 554 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### Production—Continued.

Principal purposes for which coal is used.  
 Steam-raising power.  
 Friability and behavior in drying.  
 Contents of coal in sulphur; moisture; ash.  
 Give more complete analysis if possible.  
 Average market price of coal at mine.  
 Transportation facilities to market.

Principal markets.	Approximate quantities shipped.	Rate of freight.	Retail price at market.
(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

Date of the commencement of mining operations.  
 Date at which the mine first became productive.

### SCHEDULE C.—PETROLEUM.

Reported by .....; No. ....  
 Name; State or Territory; County; District.  
 Ownership:

[Inquiries numbered 1 to 5, inclusive, on Schedule A—Metallic Mines, are common to this schedule and are not here reproduced.]

Dimensions and area of oil property.  
 Nature of title.

#### Geological:

Describe outcrop of oil-bearing rock, if any.  
 If not, state how existence of oil was detected.  
 Dip and strike of formation.  
 Does it form a basin? If so, describe it, giving dimensions.  
 Character of prevailing rocks (with specimens).  
 Fossils, if found here or in vicinity (send specimens and note position).  
 Give position and distance of nearest coal beds.  
 Character and thickness of rocks passed through (with specimens).  
 Observe temperature of well at various depths, if possible.

#### Extent of development:

Depth of well.  
 Is well flowing, or is oil pumped.

#### Working system:

Method of boring generally used in district.  
 What machine was used for boring?  
 Diameter of hole bored.  
 Rate of progress in different rocks passed through.  
 Average cost of boring per running foot.

#### Accidents:

Character and number of accidents during year.

#### Plant:

Character and number of engines employed.  
 Horsepower (total).  
 Describe rest of plant.  
 Total cost of plant (including freight).

#### Consumption of labor, power, and material:

Average number of men employed, and capacities.  
 Wages paid each.  
 Total wages paid during year.  
 Total horsepower of engines.  
 Pressure of steam.  
 Total quantity of water fed to boilers during year.  
 Kind and quantity of fuel burned.

#### Production:

Total number of gallons oil produced during year ending June 1, 1880.  
 Total number of gallons oil produced during month of June, 1879.  
 Total number of gallons oil produced during month of June, 1880.  
 Production of former years, if obtainable.

## Production—Continued.

Character of oil produced and purposes for which used.

Density of crude oil.

Base after distillation (tar or paraffine).

## Disposition:

Value at well per gallon.

Transportation facilities.

Principal markets.

Cost of freight thither per barrel and per gallon.

Retail price there per gallon.

## SCHEDULE D.—CHARCOAL BURNING.

Reported by .....; No. ....

Name; State or Territory; County; District.

## Position:

Topographical position (considerable detail is required).

Position relatively to town.

Position relatively to works or market.

Position relatively to lines of communication.

## Ownership:

Name of owner.

Working capital.

Nature and area of wood claims.

What proportion of available timber has been exhausted?

Date at which operations were begun.

Date at which property came into present ownership.

How long will supply of timber probably last at present rate of consumption?

## Wood:

Name and locality of ranch supplying wood.	Weight of wood per cord.	Botanical character.
(a)	(a)	(a)

a Several blank lines are printed in schedule.

(Send section of bough and twig of foliage.)

Mean distance from which wood is transported.

How is wood transported (by flume, wagon, or pack animals)?

Cost of transportation.

At what season is the wood cut?

Is the wood in the sap when cut?

Average length and thickness of billets of wood burning.

## Process:

Is the wood charred in pits, stacks, or kilns?

How many of each in use?

Give reasons for preferring this system.

Amount of wood charged in one apparatus, in cords.

System of ignition.

How is the combustion controlled?

Duration of burning.

Duration of cooling.

Are any distillation products preserved, and what?

Average number of bushels of charcoal produced per cord of wood.

Weight of a bushel of charcoal.

Maximum capacity of works.

## Consumption of labor:

Class of laborers.	Number of each employed.	Wages of each per shift.	Length of shift.	Nation-ality.
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

Total number of hours' labor performed during the year, calculated as if it had been done by one man.

# 556 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## Cost:

- Total cost of plant.
- Cost of charring per bushel of charcoal.
- What portion of the wood is purchased?
- At what price is it purchased?
- What does wood felled by the owners cost, delivered, per cord?

## Production:

Amount of—	During year end- ing May 31, 1880.	During month of June, 1879.	During month of June, 1880.
Wood consumed, in cords.....			
Charcoal produced, in bushels.....			
Charcoal produced, in pounds.....			

## Disposition of product:

- To what market is the charcoal shipped?
- Cost of getting it to market.
- Is it sent in bulk or sacks?
- How is it transported?
- Average price at market.

## Description of apparatus:

- Give shape and dimensions of kilns, stacks, or pits, with diagram.
- If kilns, give—
  - Material of which constructed.
  - Source from which material is obtained.
  - Average duration.
  - Cost of building.
- If stack or pit, give—
  - Time required for construction.
  - Cost of construction.
  - Material used for covering.
  - Any other interesting details of apparatus.

## SCHEDULE E.—HYDRAULIC MINES.

Reported by .....; No. ....

Name; State or Territory; County; District.

## Position:

- Topographical (considerable detail is required).
- Position relatively to town.
- Position relatively to source of supply of water.
- To lines of communication.
- Altitude referred to sea level.
- Altitude referred to nearest valley available for tailings (give name).

## Ownership:

[Inquiries numbered 5 and 6 in Schedule A.—Metallic Mines, are common to this schedule and are not here reproduced.]

- Particulars of any outside real property of company (as land for tailings, etc. If the company also owns ditches, mention here, but describe on appropriate schedule).

## Geological data:

- Superficial extent of the gravel deposit.
- Form of the surface.
- Form of the bed rock (is it a river bed or basin)?
- Width and length of river bed or basin.
- Maximum depth of gravel.
- Mean depth of gravel on claim.
- Do false bed rocks occur in the deposit?
- Kind and order of deposits recognized in gravel.
- What is the richest portion of the gravel?
- Is any portion barren?
- Is grass-root gold found?
- What proportion of the gravel pays?

## Geological data—Continued.

Surface of bed rock (whether rough or not, etc.).

Character of bed rock (description and specimen).

Are any fossils found in bed rock or gravel (specimens, with minute description of occurrence)?

Is any portion of the gravel overlaid by lava (specimen)?

Occurrence of water and quicksand.

What is the water level?

Is there any notable change in the deposit at the water level?

## Development:

Is the claim opened by a tunnel or a cut?

How long is it?

What are its dimensions?

What is its grade?

Depth of chimneys from end of tunnel.

Position of chimneys relatively to river bed or basin.

Area of gravel cleared away up to June 1, 1880.

## Piping apparatus:

What is the difference of level between pressure boxes and nozzles?

Diameter of pipes and number.

Material of which pipes are constructed.

Method of joining lengths of pipe.

Thickness of walls of pipe.

Number of nozzles fed by one pipe.

Total number of nozzles.

Name of nozzle, and size.

Maker of nozzle.

Method of deflecting nozzle.

Quantity of water thrown from nozzle (in gallons).

What definition of a "miner's inch" is accepted at this mine?

Mean length of stream thrown from nozzle.

## Water supply:

From what locality does the water supply come (lake or river, etc.)?

Who owns the water?

If the water has been used before, state particulars.

## Working:

In how many benches is the mine worked?

What are the heights of the benches?

How much gravel is extracted by drifting?

What tenor of gravel pays for drifting?

Are power drills in use? If so, state purposes, number, description of drill, etc.

Kinds of powder used.

State circumstances under which each is employed.

What quantities of powder are used per blast?

System of disposing the powder.

Is the blast tamped?

How is the blast fired?

If by electricity, state name and size of machine.

How much ground is loosened on the average per hundredweight of powder?

Are hurdy-gurdy wheels in use?

For what purposes, and how many?

Dimensions of wheels.

How much water do the wheels consume?

What power do they develop?

Mean weight of a cubic yard of gravel.

## Sluices:

Grade of sluices from bank to chimney.

Length of sluices from bank to chimney.

Is the chimney perpendicular, inclined, or in steps?

Description of pavement at bottom of chimney.

Width of sluice boxes in tunnel.

Grade of sluice boxes in tunnel.

Length of sluice boxes in tunnel.

Style of riffles in sluice boxes in tunnel.

Sluice boxes outside of tunnel, width.

Sluice boxes outside of tunnel, grade.

Sluice boxes outside of tunnel, length.

Style of riffles in these sluices (state length for each style).

# 558 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## Sluices—Continued.

- Number of undercurrents.
- Number of drops, and their height.
- Number of grizzlies and their height.

## Amalgamation:

- How much quicksilver is added to the sluices, and where?
- At what time is it added?
- How is the gold found to be distributed in the sluices and undercurrents?
- How often are the various parts of the sluices cleaned up?
- Describe the retorting of amalgam.

## Accidents:

- Number of men fatally injured during the year.
- Number of men disabled above one week.

Cause of accident.	Men killed.	Men injured.
Caving of bank .....		
Premature explosions of powder.....		

## Consumption of labor, power, and material:

- What is the consumption of water per hour?
- What is the consumption of water per day?
- What is the consumption of water per year?
- Under what head or pressure is the water used?
- Number of men of different classes employed, and their wages.
- Length of shift.
- Number of hours' work done during the year, calculated as if done by one man.
- Number of working hours per day.
- Total amount paid on labor account.
- How much quicksilver is lost?
- How much gold is supposed to be lost?
- How long do riffles of various kinds last?
- Total cost of plant.
- What is the total cost of hydraulic mining per ton of ore?
- Total cost of operations before the mine became productive.

## Production:

- On how many days during the year has the mine been worked?
- State usual limits of the season and the cause (ice or drought).

	Year ending June 1, 1880.	Month of June, 1879.	Month of June, 1880.
Quantity of gravel worked.....			
Quantity of gold obtained.....			

- What is the fineness of the gold?
- What other metal does the bullion contain?
- Is any platinum found?
- Are any diamonds found?
- Production of former years, if attainable.
- Total production up to June 1, 1880.

## Disposition of bullion:

- To what market is the bullion shipped?
- Through what transportation company?
- What charges are incurred in getting it to market?
- What discount is charged on the bullion?

## SCHEDULE F.—HYDRAULIC DITCHES.

Reported by .....; No. 3.

Name; State or Territory; County; District.

## Position:

- State sources of supply of water and their position.
- Does the water come from perennial springs or from melted snows?
- Describe the country through which the ditches pass.
- Give the localities to which water is supplied and their relation to the ditches.

Ownership:

Name of firm or company.  
Main office address.  
Capital stock.  
Number of shares.  
Par value.  
Quotation June 1, 1880.  
Working capital.  
Name of superintendent.  
Date at which the ditch was constructed.  
Date at which the ditch came into its present ownership.

Plant:

Reservoirs, their position and capacity.  
General description of construction.  
Total length of ditches (including flumes, pipes, etc.).  
Length of flumes.  
Depth of cañons crossed.  
Length of pipes.  
Depth of cañons crossed.  
Grade of ditches.  
Cross section of ditches.  
Mean velocity of water in ditches at any section.  
Are the ditches lined to any extent?  
If so, with what material?  
Grade of flumes.  
Cross section of flumes.  
Velocity of water in flumes.  
Diameter of pipes.  
Thickness of iron at various depths.  
How are longitudinal joints made?  
How are circular joints made?  
Are air-valves employed; and if so, at what points?

Capacity:

What is the total quantity of water delivered by the ditches?  
What quantity of water is supposed to be lost by leakage?  
What quantity of water is supposed to be lost by evaporation?  
During what months is water supplied?  
At what rates is water supplied?

Cost:

What is the average cost of ditches per yard?  
What is the average cost of flumes per yard?  
What is the average cost of pipes per yard?  
Cost of the reservoirs.  
Total cost of the whole plant.  
What repairs are made, and what do they cost?  
State the different classes of employees, their number and wages.  
Give an account of the accidents which have occurred during the year, their character and effects.

SCHEDULE G.—ORE-DRESSING WORKS.

Reported by.....; No.....

Name; State or Territory; County; District.

Position:

Topographical (considerable detail is required).  
Position relatively to town.  
Position relatively to mines.  
Position relatively to lines of communication.

Ownership:

Name of firm or company.  
Main office address.  
Capital stock.  
Number of shares.  
Par value.  
Quotation June 1, 1880.  
Working capital.

# 560 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## Ownership—Continued.

Name of superintendent.

Date at which works were built.

Date at which works came into present ownership.

Ore treated:

Ore treated in the year ending June 1, 1880:

Name and locality of mines supplying ore.	Quantity of ore from each.	Assay value in various metals.	Character of ore.	
			Physical.	Mineralogical.
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

## Process:

State succinctly the following:

Methods and apparatus employed for crushing.

For sizing.

For concentrating.

The succession of processes to which the ore is subjected.

Capacity of the mill.

Consumption of labor, power, and material:

Table of employees, wages, and shifts:

Classes of employees.	Number employed.	Wages per shift.	Length of shift.
Foremen .....			
Skilled workmen .....			
Helpers .....			
Laborers .....			

Number of staff (all employees not engaged in manual labor).

Aggregate salaries of staff.

Total number of hours' work done during the year, calculated as if done by one man.

Total sum paid on labor account, exclusive of staff, during the year.

How many hours per day is the mill at work?

Total number of days on which the works have been in operation during the year.

Number of steam engines and water wheels.

Horsepower of each.

Total quantity of water fed boilers during the year.

Pressure of steam.

Quantity of fuel burned under boilers, and its character (if wood, give weight per cord).

Quantity of water consumed in ore-dressing.

Sources of water supply.

State whether water is used repeatedly or only once.

Quantity of lubricators consumed during the year.

Cost of material.	Fuel, per ton or cord.	Water, per gallon.	Lubricators, per gallon.
Price at works .....			

## Losses:

Percentage of each metal escaping with tailings.

Assay value of tailings.

Cost of concentration:

Cost of works.

Cost of concentration per ton ore.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 561

## Terms for custom work:

Prices charged for concentrating per ton ore.

Agreement, if any, as to quantity of concentrations returned, and their tenor.

Do tailings or any valuable material become property of the ore-dressing works?

Terms on which ore is purchased, if any (if a sliding scale is in use, give it in full).

Who pays for the transportation of ore to the mill?

If the mill pays, at what rate?

## Production:

	Year ending June 1, 1880.	June, 1879.	June, 1880.
Ore treated during .....			
Concentrations obtained during .....			
Tenor of concentrations .....			

## Sampling:

Describe system of sampling ore.

Is the ore assayed in crucibles or scorifiers?

Are the assays corrected for loss in assaying?

## Disposition of concentrations:

If the concentrations are sold, state where.

How shipped to market?

Charges incurred in transportation.

Average price received.

## Details of process:

The apparatus used in crushing, sizing, and concentrating is too various in character to admit of a detailed schedule. What is desired is as exact and detailed a description as possible, in which diagrams will be of great assistance.

Most details can be brought under one or another of the following heads:

Designation of apparatus, number of the kind, and number in actual operation.

Construction and dimensions.

Duty or amount of work performed.

Method of handling or running.

Disposition made of products.

## SCHEDULE H.—AMALGAMATING MILLS.

Reported by .....; No. ....

Name; State or Territory; County; District.

## Position:

Topographical (considerable detail is required).

Position relatively to town.

Position relatively to mines.

Position relatively to lines of communication.

## Ownership:

Name of firm or company.

Main office address.

Capital stock.

Number of shares.

Par value.

Quotation, June 1, 1880.

Working capital.

Name of superintendent.

Date at which mill was built.

Date at which mill came into present ownership.

## Ore treated:

Ore treated in the year ending June 1, 1880:

Name and locality of mines supplying ore.	Quantity of ore from each.	Assay value in various metals.	Character of ore.	
			Physical.	Mineralogical.
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

## 562 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### Process:

Succinct description of process (e. g., dry-crushing with 30 stamps, roasting in White's furnace with salt, pan amalgamation).

Capacity of mill.

(If any centrifugal or other machine is used instead of a stamp battery, frame a schedule for it similar to that for stamp battery.)

### Consumption of labor, power, and material:

Table of employees, wages, and shifts:

	Amalgamators.	Day laborers.	Other workmen.	Foremen.
Average number employed.....				
Length of shift .....				
Wages per shift .....				

Number of staff (all employees not engaged in manual labor).

Aggregate salaries of staff.

Total number of hours' work done during the year, calculated as if done by one man.

Total sum paid on labor account, exclusive of staff, during the year.

How many hours a day is the mill at work?

Total number of days on which the mill has been in active operation during the year.

Total horsepower of engines.

Total quantity of water-fed boilers during the year.

Pressure of steam.

Quantity of fuel burned under boilers, and its character (if wood, give weight per cord).

Quantity of fuel consumed in retorting during the year.

Quantity of fuel consumed in roasting during the year.

If fuel is used for any other purposes, state them and the amount used.

Table of supplies consumed, and their cost:

	Unit.	Total consumption for the year.	Price per unit.	Total cost.
Fuel .....	cord			
Quicksilver .....	ton			
Salt .....	pounds			
Bluestone .....	pounds			
Cast iron .....	pounds			
Steel .....	pounds			
Lubricators .....	gallons			

### Losses of metals:

Percentage of assay value of gold extracted by first treatment.

Percentage of assay value of silver extracted by first treatment.

Mean assay value of tailings in gold and silver.

Mean assay value of slimes in gold and silver.

### Cost of milling:

Cost of mill (including freight).

Cost of milling per ton ore.

### Terms for custom milling:

Price charged for milling per ton ore.

Agreement, if any, as to per cent of bullion returned to mine owners.

Do slimes, tailings, and agitator sands belong to the mill?

Terms on which ore is purchased, if any. (If a sliding scale is in use, give it in full.)

Who pays for the transportation of the ore to the mill? If the mill pays, at what rates?

Means of transportation.

## Production:

Table of production during the year ending June 1, 1880:

	Tons worked.	Mean assay value.		Bullion produced.	
		Fine gold.	Fine silver.	Fine gold.	Fine silver.
Ore .....					
Tailings .....					
Slimes .....					

(If the bullion product can not be immediately given in fine metal, the agent must calculate it from the other data.)

Fineness of bullion in gold and in silver.

What metal or metals constitute the residue?

	June, 1879.	June, 1880.
Ore slimes and tailings treated .....		
Fine gold extracted .....		
Fine silver extracted .....		

Production for former years, if attainable.

Total production up to June 1, 1879.

If silver is estimated in dollars, state whether the market value or mint value (1 ounce=\$1.2929) is assumed.

## Disposition of bullion:

To what market is it shipped?

Through what transportation company?

Charges incurred in getting bullion to market.

Discount on bullion.

## SCHEDULE I.—STAMP BATTERY.

Reported by .....; No. ....

Name; State or Territory; County; District.

## Construction:

Crushing, wet or dry.

Where was the battery manufactured, and by whom?

Number of stamps.

Number of stamps per battery.

Weight of stamps, new.

Weight of shoe, new.

Weight of die, new.

Are the guides of wood, iron, or brass?

Are the shoes and dies of iron or steel?

Precise character of metal (e. g., nearly white mottled iron, Franklinite, etc.).

Number of cams per stamp.

Maximum drop attainable.

Width of mortar at the bottom of screen.

Level of new die surface, measured from lower edge of discharge.

Discharge, single or double?

Kind of screen used (e. g., needle-punched, brass wire, etc. Make special mention of concave screens, if used).

Number of screens (e. g., No. 4 or No. 60).

Is the battery provided with a copper plate for amalgamation?

If a separate engine is used in running the battery, state its power.

How many stamps are run by a single countershaft and pulley?

Is the battery fed by hand or by machines?

If by machines, state name, manufacturer, and number.

How many rock-breakers are used?

State name, manufacturer, and number.

If the crushing is dry, state manner in which the ore is dried.

If the mortar is built of plates, mention the fact, the general method of construction, and its success.

## 564 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### Adjustment:

- Mean fall of stamps.
- Number of blows per minute.
- Order in which the stamps in each battery fall.
- Average rotation of stamps in rising.
- Average rotation of stamps in falling.

### Duty of battery:

- Mineralogical character of ore.
- Physical character (state hardness, toughness, etc., as exactly as possible).
- Average number of tons ore crushed per day per stamp.
- Maximum amount of ore crushed per day per stamp.
- What *weight* of stamp and what *drop* gives the best result with these ores?
- If battery amalgamation is practiced, state amount of gold caught.
- If battery amalgamation is practiced, state amount of silver caught.
- Proportion of each to contents of ore.
- How much gold and silver does battery amalgam contain per ounce?

### Wear and consumption:

- How long do average cams last?
- How long do average shoes last?
- How long do average dies last?
- How long do average screens last?
- How long do average stems last?
- What is the average weight of old shoes?
- What is the average weight of old dies?
- What is the usual fracture of cams?
- Get or calculate the loss of weight of shoes and dies per ton ore crushed.
- If battery amalgamation is practiced, state quantity of quicksilver added in the battery.
- If the battery crushes wet, state quantity of water per ton ore crushed (a).
- Is the water clean, or pumped back from the settling tanks?
- What is the shape of the surface of old shoes and dies?
- Give depth of the depression or height of elevation of the center of each from the edge.

### Method of handling dry-crushed ore:

- State method of removing fine ore from front of screens.

### Method of handling pulp in wet crushing:

- If crushing is wet, state minimum *grade* of sluices to settling tanks, and *distances*.
- Total area of settling tanks.
- Number of compartments.
- Area and depth* of each.
- Number of compartments through which the pulp flows at any one time.
- One stream passing through the settling tanks carries the pulp from how many stamps?
- How deep is the pulp in a tank compartment when it is regarded as full?
- How many tons of dry pulp does this represent?
- What percentage of ore passes from the mill as slimes?
- Area and depth of slime ponds.

### SCHEDULE K.—PAN AMALGAMATION.

Reported by .....; No. ....

Name; State or Territory; County; District.

#### Extent of plant:

- Number of pans for working ore.
- Number of settlers.
- Number of agitators.
- Number of clean-up pans.
- Number of tailings pans (for working concentrations from ore already once worked).
- Number of hydraulic strainers.
- Number of quicksilver pumps.
- Number of retorts.
- Number of melting furnaces.

---

a One miner's inch may be taken as 2,250 gallons per hour.

**Pans for working ore:**

- Dimensions of ore pans.
- System of ore pans.
- Name of maker, and place of manufacture.
- Number of shoes, and weight of set, new.
- Number of dies, and weight of set, new.
- What provisions are made for heating pans?
- Customary number of revolutions per minute.
- Weight of charge, dry.
- Temperature ordinarily maintained.
- Is heating effected by live steam or exhaust steam?
- How long does it take to work a charge?
- Is the muller kept down all the time?
- If not, how long after the beginning of the charge is it raised?
- How much quicksilver is charged to the pan?
- Is a certain amount of quicksilver charged per ounce of bullion in the ore?
- If not, what rule is adopted?
- At what period is the quicksilver added?
- What other chemicals are added to each charge?
- In what quantities?
- At what period?
- What rule is adopted in adding chemicals?
- Is iron added in shavings and the like?
- If salt is used, state source of supply.
- How much quicksilver is lost per ton of ore treated?
- What is the average weight of a set of worn-out shoes?
- What is the average weight of a set of worn-out dies?
- Calculate consumption of iron of shoes and dies per ton of ore.
- Calculate consumption of iron shavings, etc., if used, per ton of ore.
- Has explosive gas ever been noticed in the pans? If so, state details.
- Has the machinery ever been electrically charged? If so, state particulars in detail.
- How often are the pans cleaned up?
- Is there a general clean-up of the mill?

**Settlers:**

- Dimensions of settlers.
- Customary number of revolutions per minute.
- How long is a charge kept in the settler?
- How long after opening the highest plug is the settler completely emptied?

**Amalgam and quicksilver:**

- Is the quicksilver which passes through the strainers carried back to the pans in buckets, or pumped?
- Of what material are the straining bags?
- Is the amalgam from the straining bags put through a clean-up pan?
- If so, state dimensions and capacity.
- If a hydraulic strainer is used, state pressure.
- If hot straining is employed, state system, temperature, and results.
- What is the gold and silver contents of an ounce of amalgam as it goes to the retorts?

**Retorting:**

- Dimensions of retorts.
- Is the vent at the center of the rear end or at the upper edge?
- If the former, is it the practice to turn the retorts after one side is worn?
- Is the section of the retort circular, and if not, of what shape?
- What weight of amalgam is charged in a retort?
- How deep is the retort filled?
- Is the amalgam charged in cups?
- Or divided by disks of sheet iron?
- How long does it take to retort a charge?
- How much fuel is burned?
- Describe as nearly as possible the temperature.
- How much quicksilver is lost in distillation?
- State whether the vent often chokes.
- If so, to what cause is it ascribed?
- How many charges does the average retort stand?
- Fineness of retorted bullion in gold.
- Fineness of retorted bullion in silver.
- How much copper does it contain?

## Retorting—Continued.

- How much iron does it contain?
- How much lead does it contain?
- How much quicksilver does it contain?

## Melting:

- General character and dimensions of furnace.
- Size of pots, their material and maker.
- Fluxes employed.
- How much quicksilver does the bullion retain after melting?

## Agitators:

- Dimensions of agitators.
- Number of revolutions per minute.
- How much amalgam is recovered from agitators?
- What do agitator-sands assay?

## Tailings:

- What do the mill tailings after leaving the agitator assay?
- Are they concentrated?
- If on blankets, state total length of blanket sluices (not of compartments).
- Width of blankets.
- By whom manufactured.
- Number of compartments in each sluice.
- Grade of blanket sluices.
- What quantity of concentrations is obtained?
- What do they assay?
- Quantity of gold and silver estimated as escaping from last sluice per ton of ore.
- Are the concentrations allowed to weather before retreatment?
- If so, how long?
- If they are otherwise treated (for instance, roasted) state the method.
- What proportion of the assay value of the concentrations is recovered by reamalgamation?
- How does the pan amalgamation of concentrations differ from that of ore?
- If the whole of the tailings is saved and treated, state the fact.
- If the tailings are saved, but not treated, mention it.

## Slimes:(a)

- Area and depth of slime basins.
- What quantity of slimes is caught?
- What quantity of slimes is estimated as lost?
- Assay value of slimes.
- Are they treated at the mill, or sold?
- If treated at the mill, state method and results.
- If sold, state price paid.
- How many men have been salivated during the year?
- What is the average period of disablement?

## Sampling and assaying:

- Are samples of ore taken?
- If so, state how; how often, and what quantities.
- Are battery samples taken—how, and how often?
- Are tailing samples taken—how, and how often?
- State method of taking bullion samples, whether from melted or solid bullion; from what part of bar or pot, etc.
- Is the ore assayed in crucibles or scorifiers?
- Are ore assays corrected for loss in assaying?

## SCHEDULE L.—ROASTING FURNACES (IN AMALGAMATING MILLS).

Reported by ....., No. ....

Name; State or Territory; County; District.

## Furnaces:

- Number of furnaces.
- Number in use.
- Name by which the furnace is known.
- General system of furnace (as revolving cylinder, shaft furnace, etc.).
- Principal dimensions, with diagrams.

---

<sup>a</sup> The amalgamation of slimes is sometimes performed in pans of peculiar construction—for instance, with several mullers. In such cases the agent will frame a schedule applicable to the case, and based on the scheme for ordinary pans.

## Furnaces—Continued.

Kind of lining and source from which it is obtained.  
 Any important details of construction.  
 Does the ore pass through the furnace continuously, or is one charge finished before a second is begun?  
 How often is the furnace shut down for repairs?  
 What is the capacity of the furnace per 24 hours?  
 Method of conveying the ore to the furnace.  
 Method of feeding the ore into the furnace.  
 If any mechanism is used in feeding salt, describe it.

## Process:

Principal manipulations in roasting.  
 Describe, by colors, the temperatures used in roasting.  
 Average tenor of the ore which is roasted, and any known details of composition.  
 Rule for mixing ores of different grades and qualities.  
 If the ore is roasted charge by charge, what does the charge weigh?  
 How long is a charge roasted?  
 What is the interval of time between the charging of two successive charges?  
 If the ore is roasted continuously, how long is any particle of ore exposed to the roasting action?  
 Is salt used in roasting?  
 If so, what quantity per ton, on the average?  
 Is the salt added with the raw ore, or when it is partially roasted, and if the latter, at what period?  
 What governs the amount of salt added?  
 What is the average sulphur contents of the ore roasted?  
 How close is it necessary to keep to this sulphur contents?  
 What is the average per cent of metal chloridized?

## Labor, fuel, and power:

Number of men employed, and length of shifts.  
 What fuel is used?  
 How much per ton of raw ore?  
 If the furnace is a mechanical one, what is the power used to drive it?

## Results:

Loss of weight of ore in roasting.  
 Tenor of roasted ore, and any known details of composition.

## Flue dust:

Number of flue-dust chambers.  
 Describe their general construction and dimensions, with diagram.  
 Amount of flue dust caught per ton of ore roasted.  
 Supposed loss of flue dust.  
 Tenor of flue dust.  
 Differences in composition between flue dust and roasted ore.

## SCHEDULE M.—ALTERNATE AMALGAMATION AND CONCENTRATION OF BATTERY SANDS (BEGINNING WITH AMALGAMATION).

Reported by .....; No. ....

Name; State or Territory; County; District.

## Amalgamation of pulp on sluices:

Number of amalgamated battery sluices.  
 Slope of amalgamated battery sluices.  
 Width of amalgamated battery sluices.  
 Length of a sluice.  
 Quantity of bullion recovered from these sluices  
 And its proportion to the metal contained in the ore.  
 If any other apparatus is employed in front of the battery, instead of amalgamated sluices, state particulars.

## Concentration of tailings from amalgamated sluices:

State kind of concentrator.  
 Number of apparatuses.  
 Most important dimensions.  
 Quantity of pulp concentrated by one concentrator in twenty-four hours.  
 If the sands, or a portion of them, are concentrated a second time, state the particulars.  
 What quantity of concentrations is obtained per day and per ton ore crushed?  
 How are the concentrations treated (if by pan amalgamation, use pan schedule)?  
 What do the concentrations assay?

**Tailings from concentrators:**

How are the tailings from concentrators treated?  
 If further concentrated, state number and dimensions of apparatus.  
 Quantity of concentrated tailings caught.  
 Assay value of concentrated tailings caught.  
 What disposition is made of them?  
 If sold, state price.  
 If chloridized for mill company, state rate.  
 And per cent of bullion returned.

**Tailings from pans:**

Quantity of pan residues obtained.  
 Assay value.  
 Disposition.  
 If sold, state price.  
 If chloridized for mill company, state rate.  
 And per cent of bullion returned.

**SCHEDULE N.—ALTERNATE CONCENTRATION AND AMALGAMATION OF  
 BATTERY SANDS (BEGINNING WITH CONCENTRATION).**

Reported by .....; No. ....

Name; State or Territory; County; District.

**Concentration of pulp on blankets:**

Number of blanket sluices.  
 Slope of blanket sluices.  
 Width of blanket sluices.  
 Length of a sluice.  
 Number of blankets in a sluice.  
 Frequency with which blankets are washed (discriminate blankets nearest battery, next lower, and so on).  
 Quantity of blanket concentrations obtained per ton ore crushed.  
 Assay value of blanket concentrations.

**Amalgamation of blanket concentrations:**

Short description of amalgamator.  
 Quantity of bullion recovered.  
 Temperature of water.  
 Quantity of water.

**Tailings from amalgamator:**

If treated on amalgamated surfaces, state their nature.  
 Is the copper of such surfaces silver-plated before amalgamation?  
 State length of surfaces.  
 State breadth of surfaces.  
 State slope of surfaces.  
 Depth of water on plates.  
 If any mechanism is employed as a substitute for a portion of the amalgamated sluices, state its nature and general dimensions.  
 How long do plates last without reamalgamation?  
 If the copper plates are silver-plated, what does it cost per square foot?  
 How long does the plating last?  
 What quantity of material is caught on the foregoing sluices and substitutes?  
 What is its value by assay?

**Tailings from battery blanket sluices:**

What means are taken to extract the metal from blanket-sluice tailings?  
 If similar apparatus to that in use for amalgamator tailings is employed, state extent.

Quantity of material caught.  
 Value of this material by assay.

If some different apparatus is used, state construction, dimensions, and results.

**Treatment of material collected from sluices, etc.:**

State total quantity of material collected from sluices, etc.  
 State assay value of material collected from sluices, etc.  
 How is it treated?

If in pans, continue description on pan schedule.

**Treatment of tailings escaping from mill sluices:**

State general method of concentrating mill tailings.  
 Number and principal dimensions of apparatus.  
 Quantity of concentrated tailings obtained.

## Treatment of tailings escaping from mill sluices—Continued.

Assay value of concentrated tailings obtained.

Disposition made of concentrations.

If sold, state price.

If worked for mill company in chloridizing works, state price per ton paid for treatment.

And per cent of assay value returned by chloridization works.

## Pan tailings:

Quantity of residues from pans obtained:

Assay value.

Disposition.

If sold, state price.

If chloridized for mill company, at what price?

And per cent of bullion returned.

## SCHEDULE O.—ARRASTRAS.

Reported by .....; No. ....

Name; State or Territory; County; District.

## Position:

Topographical (considerable detail is required).

Position relatively to town.

Position relatively to mines.

Position relatively to lines of communication.

## Ownership:

Name of firm or owner.

Address.

Working capital.

Name of superintendent.

Date at which arrastras were built.

Date at which they came into present ownership.

## Ore treated:

Ore treated during the year ending June 1, 1880:

Name and locality of mines supplying ore.	Quantity of ore from each.	Assay value in various metals.	Character of ore.	
			Physical.	Mineralogical.
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

## Plant:

Number of arrastras.

Dimensions of arrastras, with diagrams.

Describe paving (specimen).

Number and weight of drags.

Of what rock are the drags (send specimen, unless the rock is the same as the paving)?

Customary number of revolutions per minute.

Weight of charge, dry.

How long does it take to work a charge?

How much quicksilver is added per charge?

What rule is adopted to determine the quantity of quicksilver added, or what test is applied?

When is the quicksilver added?

What other chemicals are used?

In what quantities?

At what time are they added?

How are the arrastras discharged?

How often are the arrastras cleaned up?

Describe the straining of amalgam.

What is the gold and silver contents of the amalgam as it goes to the retorts?

Describe the retorting.

What disposition is made of tailings?

What is the supposed or known contents of tailings?

Describe the sampling done.

How are assays made?

# 570 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Consumption of labor, power, and material:  
Table of employees, wages, and shifts:

Classes of employees.	Average number employed.	Length of shift.	Wages per shift.
(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

Total number of hours' work done during the year, calculated as if done by one man.

Total sum paid on labor account during the year.

During how many days of the year has the mill been in active operation?

How many hours a day is the mill in operation?

What is the motive power? (If animals, state number; if engine, state power.)

Table of supplies consumed and their cost:

	Total consumption for the year.	Price per unit.	Total cost.
Fuel, cord or ton .....			
Quicksilver, pounds .....			
Salt, pounds .....			
Bluestone, pounds .....			
Lubricators, gallons .....			

Losses of metals:

Percentage of assay value of gold extracted by first treatment.

Percentage of assay value of silver extracted by first treatment.

Assay value of tailings.

Cost of milling:

Cost of plant.

Cost of treatment per ton of ore.

Terms:

Terms on which ore is purchased.

Terms on which ore is worked for owners.

Production:

	Year ending May 31, 1880.	Month of June, 1879.	Month of June, 1880.
Fine gold produced .....			
Fine silver produced .....			

Average fineness of bullion in gold and silver.

Production of former years, if attainable.

Disposition of bullion:

To what market is the bullion shipped?

Through what transportation company?

Charges incurred in getting bullion to market.

Discount on bullion.

## SCHEDULE P.—SMELTING WORKS.

Reported by .....; No. ....

Name; State or Territory; County; District.

Position:

Topographical (considerable detail is required).

Position relatively to town.

Position relatively to mines.

Position relatively to lines of communication.

**Ownership:**

Name of firm or company.  
 Main office address.  
 Capital stock.  
 Number of shares.  
 Par value.  
 Quotation June 1, 1880.  
 Name of superintendent.  
 Date at which works were built.  
 Date at which works came into present ownership.  
 Amount of real estate owned.

**Ore treated:**

Name and locality of mine supplying ore.	Quantity of ore from each mine for year.	Assay value of ore.			Character of ore.	
		In—	In—	In—	Physical.	Mineralogical.
(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

**Composition of ore:**

Designation of ore.	Contents in—						
	Arsenic.	Antimony.	Sulphur.	Zinc.	Iron.	Lime.	Silica.
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

Who pays for transportation of ore to works?

If the smelting works, at what rate?

**Process:**

Succinct description (e. g., smelting in blast furnaces with siliceous flux, and production of silver lead; desilverization by steam Pattinsonizing; refining on tests).

Capacity of works.

Is any royalty paid on patented processes or apparatus?

Amount paid.

Name and concise description of process.

**Consumption of labor, power, and material:**

Class of laborers.	Number of each employed.	Wages of each per shift.	Length of shift.	Remarks.
Foreman.....				
Head smelters.....				
Helpers.....				
Day laborers.....				

Total number of hours' manual labor performed on wages during year (calculated as if it had been performed by one man).

Number of staff (all not employed in manual labor).

Aggregate salaries of staff per month.

Style of blast engine.

Maker of blast engine.

Number of blast engines in use.

Sizes of blast engines.

Pressure of blast (average).

Volume of blast (average).

Horsepower of steam engine employed in running blast.

Horsepower of other engines.

Pressure of steam.

Total quantity of water fed to boilers during year.

Quantity and kind of fuel burned under boilers during year.

If wood, ascertain weight per cord.

## 572 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Consumption of labor, power, and material—Continued.

Fuel consumed during year in—	Kind of fuel.	Quantity during year.	Weight per bushel.	Price at furnace.	Unit used.	Remarks.
Smelting .....						
Refining .....						
Roasting .....						
Other purposes .....						

Name and locality of mine supplying flux.	Quantity from each mine.	Price per ton at furnace	Mineralogical character of flux.	Assay value, if any.
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

Losses of metals:

Percentages of assay values of metals extracted in smelting.  
Amount of flue dust caught.  
Amount of metal contained in flue dust.  
Amount of flue dust supposed to be lost.  
How is flue dust treated?  
Quantity of matte formed per ton of ore.  
Percentage of metal in matte.  
Quantity of speiss formed per ton of ore.

Loss in refining.	Lead.	Copper.	Silver.	Gold.
Loss in refining of .....				
Percentage of assay value lost .....				

Terms for custom work:

Charges for smelting ore per ton.  
Agreement, if any, as to per cent of metal returned to mine.  
Do mattes, flue dust, and the like belong to the smelting works?  
Terms on which ore is purchased (give sliding scale, if any is used).

Cost:

Total cost of plant.  
Cost of smelting per ton of ore.

Production:

Amounts worked or produced during—	No. tons of ore worked.	No. tons of crude metal extracted.	No. tons of crude metal refined.	No. ounces of fine gold produced.	No. ounces of fine silver produced.	No. — of refined metal produced.	
						Lead.	Copper.
Year ending June 1, 1880 .....							
Month of June, 1879 .....							
Month of June, 1880 .....							
Assay value of—				In gold.	In silver.	In copper.	In lead.
Crude metal .....							
Matte .....							
Speiss .....							
Slag .....							

Sampling:

Describe system of sampling ore.  
What assays are used?  
Are assays corrected for loss in assaying?

## Disposition of bullion or metal:

To what market is it shipped?

Cost of getting it to market.

Average price received at market.

How is the metal sent to market (by what express, etc.)?

## SCHEDULE P 1.—PRELIMINARY OPERATIONS.

Reported by .....; No. ....

Name; State or territory; County; District.

## Crushing:

Kind of crushing machine used.

Name of manufacturer.

Size of machine.

Number of machines.

## Roasting:

Is roasting performed in heaps, stalls, kilns, or reverberatory furnaces?

Number of each.

Number of each in actual operation.

General dimensions of each.

Any important details of construction (if furnaces, name and description).

Material and source of lining.

Is ore roasted in charges or continuously?

If in charges, give weight of charge and time of roasting.

Total capacity per twenty-four hours.

How often are repairs needed in furnace?

Kind of fuel used in roasting.

Amount of fuel used in roasting per ton of ore.

Highest temperature to which ore is brought in roasting.

Number of men employed per furnace.

Number of men employed in roasting; total.

If power is employed, state how much.

If any substance is added to ore, state kind and quantity per ton ore.

How complete is the roasting?

Method of conveying roasted ore to smelting furnace.

## SCHEDULE P 2.—SMELTING IN SHAFT FURNACES.

Reported by .....; No. ....

Name; State or Territory; County; District.

Number of furnaces.

Number in actual operation.

Give diagrams of interior outline of vertical section and of interior outline of horizontal section at charging floor, with dimensions.

What material is used for lining of furnace?

Whence obtained.

Cost of lining.

Average duration.

Has the furnace an open hearth, or is it completely closed?

Is it provided with a siphon tap?

How many tuyeres per furnace?

Diameter of tuyeres.

Of what metal are they made?

Are they water-cooled or not?

Are water jackets employed?

Of what material is crucible built?

Mention any other interesting details of construction.

What is the ordinary length of the run?

Do accretions form in the furnace?

Do they form at the bottom or top?

Is the furnace run with a bright top?

How often is the furnace barred out?

What amount of ore is smelted in twenty-four hours?

What kind of flux is used?

What does it cost per ton at furnace?

What amount is used per ton ore?

# 574 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

What kind of fuel is used?  
 What does it cost at the furnace?  
 What amount of fuel per ton ore?  
 If in bushels, weight of one bushel.  
 Pressure of blast.

Quantity produced per 24 hours of—	Number of tons.	Contents by assay.		
		In—	In—	In—
Metal .....				
Matte .....				
Speiss .....				
Slag .....				

Is the slag viscous or not?  
 Does it chill quickly or not?  
 Ascertain, if possible, the percentage in the slag—  
     Of iron.  
     Silica.  
     Metallic oxide, etc.  
 Quality and characteristics of metal.

## SCHEDULE P 3.—SMELTING IN REVERBERATORY FURNACES.

Reported by .....; No. ....  
 Name; State or Territory; County; District.  
 Number of furnaces.  
 Number of furnaces in actual operation.  
 Give diagrams of horizontal section and of longitudinal section along center line, with dimensions.  
 Height of stack.  
 Of what material is hearth composed?  
 Of what material is roof composed?  
 Give source of lining and cost at furnace.  
 Average duration of roof and hearth.  
 Is the hearth supported on iron plates?  
 How often is it necessary to stop furnace for repairs?  
 What kind of flux is used?  
 What kind of fuel is used?

	Cost per unit.	Amount used per ton of ore.	Source from whence obtained.
Fuel .....			
Flux .....			

If fuel is reckoned in bushels, give weight of bushel.  
 Quantity of ore per charge.  
 Length of time required to work a charge.

Production of—	No. tons produced per 24 hours.	Contents by assay.			
		In—	In—	In—	In—
Metal .....					
Matte .....					
Speiss .....					
Slag .....					

How is slag further treated?  
 Quality and characteristics of metal.

## SCHEDULE P 4.—DESILVERIZATION BY ZINC.

Reported by .....; No. ....  
 Name; State or Territory; County; District.  
 Number of pots.  
 Number in actual operation.  
 Size of pots.  
 Weight of furnace lead charged in a pot.  
 In how many portions is the zinc added?  
 What is the weight of each?  
 What is the rule according to which the quantity of zinc is determined?  
 Is the last trace of zinc removed from the market lead by steam, or by improving in a furnace?  
 How much silver remains in the market lead?  
 Give method of dealing with zinc skimmings from furnace lead?  
 How much rich lead is obtained per ton furnace lead?  
 What percentage of silver does the rich lead contain?  
 Are the zinc crusts treated by distillation or smelting?  
 If smelted, state size of furnace and other details, as indicated in schedule for shaft smelting furnaces.  
 If distilled in retorts, give—  
   Material of which retort is made.  
   Total length of retort.  
   Greatest width of retort.  
   Weight of charge.  
   Time required to distill a charge.  
   Average duration of retort (in number of charges).  
 Give aggregate time consumed in separating a lot of furnace lead into market lead and rich lead.  
 Give total quantity of fuel thus consumed per ton furnace lead.  
 What is the total cost of labor involved in the separation?  
 What is the average wages of men employed?

## SCHEDULE P 5.—PATTINSONIZING.

Reported by .....; No. ....  
 Name; State or Territory; County; District.  
 Give number of pots.  
 Give number of pots in actual operation.  
 Give diagram showing disposition of plant, with measurements.  
 State system of crystallization (by thirds, by eighths, etc.).  
 How much rich lead is obtained on the average per ton furnace lead?  
 What percentage of silver does rich lead contain?  
 How much silver remains in the market lead?  
 What time is consumed in separating a lot of furnace lead into market lead and rich lead?  
 How much fuel is consumed in separating a lot of furnace lead into market lead and rich lead?  
 What is total cost of labor involved in the operation per ton of furnace lead?  
 What wages do the men receive?  
 How much fuel is consumed per ton lead separated?  
 What is the total cost of process per ton furnace lead?  
 If steam is used (Luce & Rozan process), state pressure of steam.  
 Describe superheating apparatus.

## SCHEDULE P 6.—IMPROVING OF LEAD.

Reported by .....; No. ....  
 Name; State or Territory; County; District.  
 Number of improving furnaces.  
 Number of improving furnaces in actual operation.  
 State general dimensions of furnaces with diagrams.  
 If the hearth is an iron pan, does it rest freely on supports?  
 Is the pan cooled from beneath?  
 What is the charge of furnace lead?  
 Depth and area of melted charge.  
 At what temperature is it improved?  
 What length of time is consumed in softening a charge?  
 State kind of fuel and consumption per ton of furnace lead.

## 576 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

What percentage of weight is lost in softening?  
 By what is it determined whether the lead is sufficiently improved?  
 What disposition is made of the dross?  
 What amount of labor is expended in refining?  
 How long does a pan last?

### SCHEDULE P 7.—CUPELLATION.

Reported by .....; No. ....  
 Name; State or Territory; County; District.  
 Total number of furnaces.  
 Number in actual operation.  
 Are the furnaces of the English or German pattern?  
 If of English pattern, describe construction of test frame, with dimensions.  
 Give size of test.  
 With what material is it filled?  
 Is the test water-cooled?  
 With what results?  
 Is the blast steam or air?  
 What fuel is employed?  
 How is the furnace lead fed to the test?  
 Is the refining completed on one test, or is the lead concentrated on one test and the refining completed on another?  
 If the latter method is employed, how far is the concentration carried?  
 How many tons of lead can be treated on the average on one test?  
 If the refining is divided, state for each.  
 How much lead is treated per day in each furnace?  
 State fineness of bullion (gold and silver) produced.  
 Consumption of fuel per ton lead cupelled.  
 Cost of labor per ton lead refined.  
 Average wages of men.  
 Loss in refining.  
 What disposition is made of the litharge?  
 Total cost of refining a ton of lead.  
 What is the assay value of the poorest lead which could be refined without absolute loss in this locality?

### SCHEDULE Q.—QUICKSILVER REDUCTION WORKS.

Reported by .....; No. ....  
 Name; State or Territory; County; District.  
 Position:  
     Topographical (considerable detail is required).  
     Position relatively to town.  
     Relatively to mines.  
     Position relatively to lines of communication.  
 Ownership:  
     Name of firm or company.  
     Main office address.  
     Capital stock.  
     Number of shares.  
     Par value.  
     Quotation May 31, 1880.  
     Working capital.  
     Name of superintendent.  
     Date at which the works came into present ownership.  
     Date at which the works were built.  
     Amount of real estate owned.

Ore treated:

Name and locality of mine supplying ore.	Quantity of ore from each mine for year.	Assay value of ore.	Character of ore.	
			Physical.	Mineralogical.
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

Who pays for transportation of ore to works?  
 If reduction works, at what rate?

**Process:**

Succinct description of process.

Maximum capacity of works.

Is any royalty paid on patented processes or apparatus?

Amount paid.

Name and concise description of patented process.

**Consumption of labor, power, and material:**

Table of employees, wages, and shifts:

Class of laborers.	Number of each employed.	Wages of each per shift.	Length of shift.	Remarks.
Foremen.....				
Head smelters.....				
Helpers.....				
Day laborers.....				

Total number of hours' manual labor performed during the year, calculated as if it had been done by one man.

Number of staff (all not employed in manual labor).

Aggregate salaries of staff per month.

Style and material of suction blower.

Maker of blower.

Number of blowers in use.

Sizes of blowers.

Pressure of blast (average).

Volume of blast (average).

Horsepower of steam engines employed in running blast.

Horsepower of other engines.

Pressure of steam.

Total quantity of water fed to boilers during year.

Quantity and kind of fuel burned under boilers during the year.

If wood, ascertain weight per cord.

Quantity of fuel consumed in quicksilver reduction during the year.

If any flux is employed, state its character, source of supply, and price per ton at works.

**Losses of metal:**

Percentage of quicksilver contents extracted.

Amount of soot formed.

Amount of metal contained in soot.

If custom work, give rates, with details.

Terms on which ore is purchased.

**Cost:**

Total cost of plant.

Cost of reduction per ton of ore.

**Production:**

Amount of—	During year ending June 1, 1880.	Month of June, 1879.	Month of June, 1880.
Ore worked (in tons).....			
Quicksilver produced (in pounds).....			

**Sampling:**

Describe system of sampling ore.

What assays are used?

Are assays corrected for loss in assaying?

**Disposition of product:**

To what market is quicksilver shipped?

Cost of getting it to market.

Average price at market.

What sort of flask is used?

How much quicksilver does a flask hold (average)?

How is the quicksilver sent to market?

## SCHEDULE Q 1.—QUICKSILVER REDUCTION IN RETORTS.

Reported by .....; No. ....  
 Name; State or Territory; County; District.  
 Number of retorts.  
 Diagrams, with dimensions of retorts.  
 What is the weight of a retort?  
 How long does the average retort last?  
 What does a retort cost at the works?  
 Average quantity of ore treated in a retort per month.  
 Average tenor of the ore.  
 What flux is added?  
 How much per ton ore?  
 What is the weight of a charge of ore?  
 How long is it retorted?  
 Total interval between the beginnings of two successive charges.  
 How much fuel is consumed per ton ore?  
 How much quicksilver does the burned ore contain?  
 What system of condensers is used (diagrams and dimensions)?  
 Percentage of quicksilver recovered.  
 What men are employed?  
 Length of shift.  
 Wages.

## SCHEDULE Q 2.—QUICKSILVER REDUCTION IN FURNACES.

Reported by .....; No. ....  
 Name; State or Territory; County; District.  
 Number of furnaces in the works.  
 Number of furnaces described in this schedule.  
 System of furnaces.  
 Cost of furnaces.  
 Are they designed to work continuously or intermittently?  
 Are they designed to work fine ore or lump ore?  
 Give diagrams of the furnace, with principal dimensions.  
 Mention the materials used in lining, and their source.  
 Any interesting details of construction.  
 How long does the furnace last without repairs?  
 State the average quantity of ore treated in the furnace per month.  
 What is the average tenor of the ore treated in the furnace?  
 What flux is added, if any.  
 How much per ton of ore?  
 Is fuel charged with the ore?  
 If so, what fuel, and how much per ton of ore?  
 How much fuel is consumed per ton of ore roasted?  
 How much quicksilver does the burned ore contain?  
 If the furnace is intermittent, state the weight of a charge.  
 How long is it roasted?  
 Total interval of time between two charges.  
 If the furnace is continuous, state the time during which any piece of ore is exposed to roasting action.  
 If adobes are made, state how much of the ore is so treated.  
 What cement is used in making adobes?  
 Of what size are the adobes?  
 How long are the adobes dried?  
 What men are employed at the furnace?  
 Length of shift.  
 Wages.

SCHEDULE Q 3.—QUICKSILVER CONDENSERS.

Reported by .....; No. ....; Name; State or Territory; County; District.

Name by which the condenser is known.	Material of which it is constructed.	Cost of a condenser.	Number in use.	Cubic capacity.	
				Each.	Total.
(a)	(a)	(a)	(a)	(a)	(a)
Total .....					

a Several blank lines are printed in schedule.

Total length of path traversed by fume.

Any interesting details of construction.

If iron condensers are used, state what portion of the walls is most rapidly corroded. If masonry condensers are employed, what measures are taken to prevent percolation of metal?

How much quicksilver is it estimated that a cubic foot of masonry absorbs?

Give as many details as possible of the amounts of quicksilver caught in the different condensers.

What is the temperature of the fumes escaping from the last condenser?

Quantity of soot obtained (if possible, per ton ore).

Character and contents of soot.

Method of treating soot.

Is draught produced by chimney or suction blower?

If by a chimney, how much of the time is a fire kept burning at the base?

If by a blower, state name of manufacturer and size.

SPECIAL SCHEDULES CONCERNING STONE QUARRIES.

SLATE QUARRIES.

State of .....

N. B.—Upon one blank only quarries situated near one another and producing the same kind of material should be included. Information concerning invested capital and value of marketable product will be regarded as confidential, and only be published in aggregate statements.

Location of the quarry with reference to a town or city, and route of travel.

Name of corporation, company, or individual producing to the value of \$500 annually.

Capital, real or personal, invested in the business.

Geological age of the formation.

Year in which the quarry was opened.

Cubical contents of the excavated space in yards.

Dimensions of the largest slab that has been quarried.

How large a slab might be obtained?

Form of natural slabs as determined by transverse joints.

Texture of the slates.

What colors are obtained?

Are there peculiarities as regards spots, developed crystals, including pebbles, or defects?

Are there peculiarities of the natural surface as regards smoothness, evenness, etc.?

Principal uses for which the slate is employed.

Is it used for ornamental purposes?

Is it marbleized?

Principal markets (cities and states).

Mode of transportation to principal market.

Distance from railroad station or wharf.

Number of squares of marketable product moved during the census year. (A square has a superficial area of 100 square feet.)

How many grades of material as regards quality are obtained?

Values:

Total value of material quarried during the census year.

Price of slates per square at the quarry.

Price of other important products of the quarry.

Are slates that have been long exposed in the quarry or upon roofs badly discolored?  
 Is the slate sawn at the quarry?  
 Is it planed, rubbed, or otherwise dressed at the quarry?

[Inquiries numbered 27 to 35, inclusive, and "remarks," in special schedule "Stone Quarries," are common to this schedule and are not here reproduced.]

#### STONE QUARRIES—CITY STATISTICS, USES OF STONE.

Indicating the uses to which stone is applied in towns of more than 10,000 inhabitants, in the State of .....

N. B.—But one city, if it is large and important, and if stone is a very essential material of construction, should be treated upon one schedule.

City or town; county.

Total number of buildings.

Number of stone buildings.

Constructed entirely of stone.

Constructed with stone fronts.

Percentage of stone buildings.

Number constructed—

Of sandstone, chiefly from .....

Of limestone, chiefly from .....

Of ....., chiefly from ..... (a)

Foundations and underpinnings:

Stone ordinarily employed,

Location of quarry.

Stones less employed, with location of the quarries.

Street pavements:

Are the streets largely paved with stone, or is stone but little used?

Kind of stone most used and location of the quarries.

Other important paving stones, with location of quarries.

Sidewalk pavements:

Are the sidewalks largely paved with stone, or but little?

Kind of stone most used and location of the quarries.

Other stones that are used to any considerable extent, with location of the quarries.

Stones commonly used for curbstones.

Other important structures of stone:

Under this head the kinds of stone that have been employed in the construction of docks, wharves, bridges, fortifications, breakwaters, sewers, or other public works, as also for any important unenumerated object, should be stated.

Remarks:

As much information as possible should here be given concerning features of any of the stones that render them peculiarly suitable or unsuitable for building purposes; concerning peculiarities that have developed by the employment of the stones; and remarks are desired upon any unmentioned topics suggested by the examination of the buildings in these cities. Particular information is desired concerning bad building stones, and in this connection whether there are local circumstances unfavorable to stones of any class, and whether imperfections and decay in stones is to any extent owing to unskillful handling of the stones by masons and builders; whether there are peculiarities of the ground unfavorable to heavy buildings, or peculiarities of any other kind that influence stone construction.

#### STONE QUARRIES—LABORATORY NOTES.

State of .....

Rock species.

Location of quarry.

References for statistics:

Mineralogical composition:

Essential components.

Accessory components.

Minutely microscopic accessories.

Remarks upon microscopic peculiarities.

---

a Repeated five times in printed schedule.

## Analytical work:

Compressive strength.	Specific gravity.	Action of fire.	Weight of cubic foot.	Action of frost.
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

## Special experiments and remarks.

## STONE QUARRIES.

## State of .....

N. B.—Only those materials which are quarried for use as materials of construction, in their natural condition, come within the limits of this inquiry.

Upon one blank only quarries situated near one another and producing the same kind of material should be included. Information concerning invested capital and value of marketable product will be regarded as confidential, and only be published in aggregated statements.

1. Location of quarry with reference to a town or city and route of travel.  
County.
2. Name of the corporation, company, or individual producing to the value of \$1,000 annually.
3. Capital (real and personal) invested in the business.
4. Kind of rock quarried.
5. Geological age of the formation.
6. Year in which the quarry was opened.
7. Cubical contents of the space in yards excavated since the quarry was opened.
8. Cubic dimensions of the largest block that has been quarried. (First two dimensions in the bed.)
9. How large a block might be obtained?
10. Structure of natural blocks—
  1. As regards stratification.
  2. As regards jointing.
11. Texture of the stone (whether coarse, fine, porphyritic, homogeneous, etc.).
12. Principal uses for which the stone is employed.
13. Is it employed for ornamental purposes?
14. Principal markets (cities and states).
15. Prominent structures made from the material.
16. Mode of transportation to principal market.
17. Distance from railroad station or wharf.
18. Number of cubic feet of marketable product moved during the census year.
19. How many grades of material as regards quality are obtained?
20. Values:
 

Total value of material quarried during the census year.
21. Price of undressed stone at the quarry per cubic foot:
 

Stone for ..... (a)
22. Is the stone dressed at the quarry?
23. Cost of dressing per square foot:
 

Pointed.  
Ax hammered.  
Bush hammered or chiseled.
24. Depth to which the sap or discoloration penetrates from natural joints.
25. Depth of cap or worthless rock on the surface (stripping).
26. Can the rock be sawn? (Especially applicable to sandstones.)
27. Machinery:
 

State the method employed for draining the quarry.

Power employed:

In drilling.  
In hoisting.  
In dressing.  
In .....  
In .....
28. Number and kind of machines:
 

For drilling.  
For hoisting.  
For ..... (a)

a Repeated four times in printed schedule.

## 582 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

29. Explosives:
    - Material employed.
    - Value of explosives used in past year.
  30. Number of months in operation:
    - On full time.
    - On three-quarter time.
    - On half time.
    - Idle.
  31. Number of hours in an ordinary day's labor:
    - From May till November.
    - From November till May.
  32. Laborers employed:
    - Greatest number of hands employed at any one time during the past ten years.
    - Greatest number during census year.
    - Males above 16 years.
    - Males below 16 years.
    - Employed in quarrying.
    - Employed in stone dressing.
  33. Animals employed at any one time during the census year:
    - Number of .....
    - Number of .....
  34. Average day's wages for a—
    - Skilled mechanic.
    - Ordinary laborer.
  35. Means of transportation belonging to the quarry:
    - Number of wagons.
    - Number of vessels.
    - Number of .....
    - Number of .....
  36. Number placed on the sample collected.
- Remarks:
- Under this head any apparent discrepancies or peculiarities in the foregoing statistics should be explained, and as much additional information of scientific or economic interest given as possible.
- Clippings from periodicals or papers, analyses, or other printed matter may be here attached.

### STONE QUARRIES, THE PRODUCTS OF WHICH ARE USED FOR ORNAMENTAL PURPOSES ONLY.

- State of .....
- Location of the quarry with reference to a town or city.
- County.
- Proprietor of the property.
- Kind of rock quarried.
- Popular name.
- Scientific name.
- Geological age of the formation.
- What are the qualities that render this rock desirable for ornamental purposes?
- Cubical contents of the excavated space in yards.
- Why has it found no extensive application in construction?
- Is it suitable for ornaments exposed to the weather?
- How large a block has been extracted (first two dimensions in feet) in the bed?
- How large blocks are accessible?
- What structure have natural blocks?
1. As regards stratification.
  2. As regards jointing.
- To what use is it usually applied?
- What prominent objects, if any, have been made from this material?
- Color:
- When rough.
- When polished.
- Has it defects which are troublesome in applying it to the specified uses?
- Is the supply limited?
- Is it systematically extracted and dressed?
- If not, are there facilities for quarrying or dressing in the immediate neighborhood?

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 583

Distance from railroad station or wharf.

Value:

At what price can this material be furnished per cubic foot at the quarry and nearest railroad station or wharf?

Remarks.

## STONE QUARRIES—ROUTES OF TRANSPORTATION: RAILROADS.

State of .....

N. B.—In case no quarries are situated upon any given railroad having its central freight office in the state, this fact may be indicated upon a schedule in order to show that the route has been considered.

Name of the railroad.

Terminal points.

Remarks concerning the country through which the railroad passes, of interest in connection with this subject:

Quarry stations upon the road.	Approximate weight of stone in tons shipped from the station.	Distribution.			Tariff rates to the termini and principal markets per carload of 10 tons. Date: —.					
		Principal markets.	To what extent has the stone been used in the neighborhood?	To what extent and to what distant markets has it been shipped?	To—	To—	To—	To—	To—	To—
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

Remarks.

## STONE QUARRIES—ROUTES OF TRANSPORTATION: WATER.

State of .....

In case no quarries are situated upon a navigable stream or body of water, and the collector has any special information that he can give concerning stones that might be quarried upon this route, a schedule may be devoted to them. No expense, however, is justified in obtaining such information.

Name of the stream or body of water.

Terminus of navigation.

Remarks concerning the country upon the route, of interest in connection with this subject:

Quarry towns upon the route.	Cubic feet of stone shipped in year from each town.	Kind of vessels used for transportation.	Distribution.			Tariff rates to the principal markets. Date —.				
			Principal markets.	To what extent is it used in the neighborhood.	To what extent has it been shipped to distant markets.	To—	To—	To—	To—	To—
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

Remarks.

## CENSUS OF 1890.

## SPECIAL SCHEDULE No. 1.—..... (a)

## LOCATION.

1. Name of mine or works.
2. Location of mine:  
Mining district or region; county; state.
3. Name and post-office address of company, corporation, or individual operating the mine or works.
4. Name and post-office address of resident superintendent or agent.
5. Name of substance produced.

## PRODUCT.

NOTE.—Use the long or short ton or other unit, according to your usual custom, but state definitely the number of pounds in the unit used. If any calculations are made, such as determining the total value of the product, it is requested that such calculations be made on the blank pages of this schedule. These blank pages may also be used for any remarks explanatory of the answers given.

6. Product for the year ended December 31, 1889:  
Total amount of crude material taken from the mine.  
Total amount of the substance in the condition in which it was first sold.
7. Stock on hand, including that at mine or mill, in transit and unsold in the hands of agents:  
(a) January 1, 1889.  
(b) January 1, 1890.
8. Total value of the year's product.

NOTE.—The value is to be taken at the stage in the preparation of the mineral at which it first becomes a marketable article and has a definite market price. For example: the price of mica is that at which it was first sold, whether in blocks, or rough, or cut sheets. If it is shipped to a distance before selling, the freight charges from the mine to the selling point should be given.

## LABOR AND WAGES.

Classification.	Average number employed. (a)	Average wages per day. (b)	Average number of days' work made by each class during the year.
9. Labor:			
Above ground (not including office force):			
Foremen or overseers.....			
Mechanics.....			
Laborers (c).....			
Boys under sixteen.....			
Below ground (not including office force):			
Foremen or overseers.....			
Miners.....			
Laborers (c).....			
Boys under sixteen.....			

<sup>a</sup>In giving the number of men employed include those employed by contractors and subcontractors, as well as by the company itself.

<sup>b</sup>Wages must include value of board or rent furnished as part compensation.

<sup>c</sup>Laborers include watchmen, teamsters, and all workmen not otherwise classified.

## 10. Wages:

Total amount of wages paid during 1889.

Total amount paid to contractors for contract work done in 1889, not included in the above item, deducting supplies charged to them.

<sup>a</sup>For minor metals not otherwise specified.

## Wages—Continued.

	Number.	Total wages paid in 1889.
11. Office force at mines or works: (a)		
Males.....		
Females.....		
Total.....		

<sup>a</sup> Where two or more mines with distinct organizations, and reported on separate census schedules, are directed and paid from one central office, the employees of such central office are not to be included in the table above. Please state on the blank page opposite the total number of males and females and their total yearly earnings, together with the names of the mines with whose administration such persons are connected.

12. Number of days during the year when the mines or works were idle, and the cause.

## CAPITAL.

13. Total value of mine and improvements as at present developed:

Distributed as follows:

In land.

In buildings and fixtures.

In tools, implements, live stock, machinery, and supplies on hand.

In cash (not reported in the foregoing items).

NOTE.—In stating the amount of capital there should be included not only the amount of capital actually invested in the business, as in lands, leases, mineral rights, rights of way, private railroads, buildings, tools, and all other forms of property, but also that used in carrying on the business. This statement, to be complete, should include as capital all money borrowed, as well as accounts having a long time to run. The idea is to get returned as capital all money invested and used in the business, whether owned by the party making the return or borrowed. The value of land, fixtures, etc., should be estimated at what they are worth or would cost in 1890.

14. Power used in mining:

Number and total horsepower of steam boilers: No.; horsepower.

Number and size of cylinders of steam engines.

If other power, state kind.

Number of motors; horsepower.

15. Number of animals employed.

16. Total value of supplies and materials of all kinds consumed during the year 1889.

17. Total of all other expenditures for the mines or works (including amounts paid for rent, taxes, insurance, interest, etc.).

NOTE.—Remarks concerning uses for which your product has proved especially valuable, analyses, peculiar mining features, etc., will be gladly received, and should be noted on the blank pages.

## SPECIAL SCHEDULE No. 2.—IRON-ORE MINES.

[Inquiries numbered 1 to 4, inclusive, in special schedule No. 1 are common to this schedule and are not here reproduced.]

Character of ore produced:

Brown hematite, limonite, or bog ore.

Red hematite, specular, or fossil ore.

Magnetic ore.

Carbonate, siderite, spathic, or black-band ore.

## PRODUCT.

NOTE.—Use the long or short ton, according to your usual custom, but state definitely the number of pounds in the ton used. If any calculations are made, such as determining the total value of the product from the price per ton, it is requested that such calculations be made on the blank pages of this schedule. These blank pages may also be used for any remarks explanatory of the answers given.

Total amount of marketable iron ore produced in the year ended December 31, 1889, including the amount smelted at the mine.

## 586 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Total stock of ore on hand, including that at mine or furnace, in transit and unsold in hands of agents:

January 1, 1889.

January 1, 1890.

Total value of iron ore produced in 1889 at the prices received for ore delivered on cars or carts at the mine.

Principal markets, and proportion of product sent to each market to which your ore is supplied.

[Inquiries numbered 9 to 17, inclusive, in special schedule No. 1 are common to this schedule and are not here reproduced.]

NOTE.—Remarks showing the uses for which your product has proved especially valuable, analyses, etc., will be gladly received, and should be made upon the blank pages of this schedule.

### SPECIAL SCHEDULE No. 3.—GOLD AND SILVER MINES.

[Inquiries numbered 1 to 4, inclusive, in special schedule No. 1 are common to this schedule and are not here reproduced.]

#### PRODUCT.

NOTE.—Use the long or short ton or other unit, according to your usual custom, but state definitely the number of pounds in the unit used. If any calculations are made, such as determining the total value of the product, etc., it is requested that such calculations be made on the blank pages of this schedule. These blank pages may also be used for any remarks explanatory of the answers given.

Total amount of ore produced in the year ended December 31, 1889.

Total assay value of ore sold or treated in 1889:

Gold.

Silver.

NOTE.—Use coining value for silver (1 ounce = \$1.2929).

Where and by what process was the ore treated?

Bullion produced from ore treated in 1889:

Metals.	Quantity.	Value.
Gold .....	<i>Ounces fine.</i>	
Silver (value of ounce \$1.2929) .....		
Copper .....	<i>Pounds.</i>	
Lead .....		
Other metals (designate them) .....		
Total .....		

[Inquiries numbered 9 to 17, inclusive, in special schedule No. 1 are common to this schedule and are not here reproduced.]

### SPECIAL SCHEDULE No. 3a.—GOLD AND SILVER MINES AND REDUCTION WORKS.

[Inquiries numbered 1 to 4, inclusive, in special schedule No. 1 are common to this schedule and are not here reproduced.]

#### PRODUCT.

NOTE.—Use the long or short ton or other unit, according to your usual custom, but state definitely the number of pounds in the unit used. If any calculations are made, such as determining the total value of the product, etc., it is requested that such calculations be made on the blank pages of this schedule. These blank pages may also be used for any remarks explanatory of the answers given.

Total amount of ore produced in the year ended December 31, 1889 (tons of ..... pounds).

Total amount of ore sold or treated in 1889 (tons of ..... pounds).

Total assay value of ore sold or treated in 1889:

Gold.

Silver.

NOTE.—Use coining value for silver (1 ounce = \$1.2929).

Where and by what process was the ore treated?  
Bullion produced from ore treated in 1889:

Metals.	Quantity.	Value.
Gold .....	<i>Ounces fine.</i>	
Silver (value of ounce \$1.2929) .....		
Copper .....	<i>Pounds.</i>	
Lead .....		
Other metals (designate them) .....		
Total .....		

[Inquiries numbered 9 to 12, inclusive, and 16 and 17 in special schedule No. 1 are common to this schedule and are not here reproduced.]

Grand total of expenditures.

#### VALUE OF MINING PROPERTY.

NOTE.—In stating the amount of capital there should be included not only the amount of capital actually invested in the business, as in lands, leases, mineral rights, rights of way, private railroads, buildings, tools, and all other forms of property, but also that used in carrying on the business. This statement, to be complete, should include as capital all money borrowed, as well as accounts having a long time to run. The idea is to get returned as capital all money invested and used in the business, whether owned by the party making the return or borrowed. The value of land, fixtures, etc., should be estimated at what they are worth or would cost in 1890.

Total present actual cash value of the mine and mining plant:

Distributed as follows:

Present actual cash value of buildings at mine.

Present actual cash value of railroads on surface.

Present actual cash value of machinery of all kinds above and below ground, including pumps, engines, boilers, cars, tools, etc.

Present actual cash value of underground improvements, including shafts, tunnels, drifts, tramways, etc.

Present actual cash value of mine supplies of all kinds on hand December 31, 1889.

Present actual cash value of the mine itself, exclusive of above items.

Cash not reported in the foregoing items.

Value of mill, smelting, or other reduction works (exclusive of mining property):

State character of works, whether concentrating, amalgamating, chlorinating, smelting, or other works.

Present actual cash value of buildings.

Present actual cash value of machinery and plant of all kinds except buildings.

Present actual cash value of supplies on hand December 31, 1889.

Total cash value of works.

[Inquiries numbered 14 and 15 in special schedule No. 1 are common to this schedule and are not here reproduced.]

#### SPECIAL SCHEDULE No. 3b.—TRANSPORTATION OF GOLD AND SILVER ORE AND BULLION.

##### LOCATION.

Name of railroad station or express office.

Name of railroad or express company.

Location of railroad or express office.

Mining district or region; county; state.

Name of nearest post-office, if different from railroad station.

##### FREIGHT RECEIVED.

Amount of ore received (tons of 2,000 pounds)—gold.

Amount of ore received (tons of 2,000 pounds)—silver.

## 588 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Value of ore received—gold.  
Value of ore received—silver.  
Amount of bullion received (ounces fine)—gold.  
Amount of bullion received (ounces fine)—silver.  
Value of bullion received—gold.  
Value of bullion received—silver.

### SPECIAL SCHEDULE No. 4.—COPPER MINES.

[Inquiries numbered 1 to 4, inclusive, in special schedule No. 1 are common to this schedule and are not here reproduced.]

#### PRODUCT.

NOTE.—Use the long or short ton or other unit, according to your usual custom, but state definitely the number of pounds in the unit used. If any calculations are made, such as determining the total value of the product, it is requested that such calculations be made on the blank pages of this schedule. These blank pages may also be used for any remarks explanatory of the answers given.

Total amount of ore produced in the year ended December 31, 1889:

Total amount of concentrates, if concentrating is used.

Total amount of matte produced.

Total amount of blister or black copper produced.

Copper contents of product as sold, whether ore, concentrates, matte, or blister.

Total stock of ore on hand, including that at mine, mill, or smelter, in transit, and unsold in hands of agents:

January 1, 1889.

January 1, 1890.

[Inquiries numbered 9 to 17, inclusive, in special schedule No. 1 are common to this schedule and are not here reproduced.]

### SPECIAL SCHEDULE No. 5.—LEAD MINES.

[Inquiries numbered 1 to 4, inclusive, in special schedule No. 1 are common to this schedule and are not here reproduced.]

#### PRODUCT.

NOTE.—Use the long or short ton or other unit, according to your usual custom, but state definitely the number of pounds in the unit used. If any calculations are made, such as determining the total value of the product, it is requested that such calculations be made on the blank pages of this schedule. These blank pages may also be used for any remarks explanatory of the answers given.

Total amount of ore produced in the year ended December 31, 1889.

Total amount of refined lead produced in 1889.

Total stock of ore on hand, including that at mine or furnace, in transit, and unsold in hands of agents:

January 1, 1889.

January 1, 1890.

Principal markets for the ore.

[Inquiries numbered 9 to 17, inclusive, in special schedule No. 1 are common to this schedule and are not here reproduced.]

### SPECIAL SCHEDULE No. 6.—ZINC MINES.

[Inquiries numbered 1 to 4, inclusive, in special schedule No. 1 are common to this schedule and are not here reproduced.]

#### PRODUCT.

NOTE.—Use the long or short ton or other unit, according to your usual custom, but state definitely the number of pounds in the unit used. If any calculations are made, such as determining the total value of the product, it is requested that such calculations be made on the blank pages of this schedule. These blank pages may also be used for any remarks explanatory of the answers given.

Total amount of ore produced in the year ended December 31, 1889.

Total amount of refined spelter produced in 1889.

## HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 589

Total stock of ore on hand, including that at mine, mill, or smelter, in transit, and unsold in hands of agents:

January 1, 1889.

January 1, 1890.

[Inquiries numbered 9 to 17, inclusive, in special schedule No. 1 are common to this schedule and are not here reproduced.]

### SPECIAL SCHEDULE No. 7.—QUICKSILVER MINES.

[Inquiries numbered 1 to 4, inclusive, in special schedule No. 1 are common to this schedule and are not here reproduced.]

#### PRODUCT.

NOTE.—Use the long or short ton or other unit, according to your usual custom, but state definitely the number of pounds in the unit used. If any calculations are made, such as determining the total value of supplies, etc., it is requested that such calculations be made on the blank pages of this schedule. These blank pages may also be used for any remarks explanatory of the answers given.

Total amount of ore produced in the year ended December 31, 1889.

Maximum total production of ore for any month during 1889, with name of month.

What is the outlook for quicksilver production in 1890?

[Inquiries numbered 9 to 17, inclusive, in special schedule No. 1 are common to this schedule and are not here reproduced.]

### SPECIAL SCHEDULE No. 8.—QUICKSILVER REDUCTION WORKS.

[Inquiries numbered 1 to 4, inclusive, in special schedule No. 1 are common to this schedule and are not here reproduced.]

Number of furnaces in operation in December, 1889.

Number of furnaces not in operation in December, 1889.

#### PRODUCT.

NOTE.—Use the long or short ton, according to your usual custom. If any calculations are made, such as determining the total value of the supplies, etc., it is requested that such calculations be made on the blank pages of this schedule. These blank pages may also be used for any remarks explanatory of the answers given.

Total number of tons of ore produced in the year ended December 31, 1889.

Total number of tons of quicksilver produced in 1889.

Total number of flasks of quicksilver produced in 1889.

Average percentage yield of quicksilver from ore roasted in 1889.

Maximum total production, in flasks, of quicksilver for any month in 1889, with the name of the month.

[Inquiries numbered 9 to 17, inclusive, in special schedule No. 1 are common to this schedule and are not here reproduced.]

### SPECIAL SCHEDULE No. 9.—MANGANESE ORE MINES.

#### LOCATION.

Name or designation of mine.

Location of mine:

Mining district or region; city, town, or township; county; state.

Name and post-office address of company, corporation, or individual operating the mine or works.

Name and post-office address of resident superintendent or agent.

#### PRODUCT.

NOTE.—Use the long or short ton, according to your usual custom, but state definitely the number of pounds in the ton used. If any calculations are made, such as determining the total value of the product from the price per ton, it is requested that such calculations be made on the blank pages of this schedule. These blank pages may also be used for any remarks explanatory of the answers given.

## 590 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Total amount of marketable manganese ore produced in the year ended December 31, 1889 (tons of ..... pounds).

Total value of the same on cars or carts at the mine.

Total stock of ore on hand, including that at mine or furnace, in transit, and unsold in the hands of agents:

January 1, 1889.

January 1, 1890.

Principal markets, and proportion of product sent to each market to which your ore is supplied.

Character and grade of ore produced.

NOTE.—State the percentage of manganese in ores mined, and, if possible, the number of tons mined containing 50 per cent or more of manganese.

[Inquiries numbered 9 to 11, inclusive, in special schedule No. 1 are common to this schedule and are not here reproduced; in inquiry 9 in this special schedule the following footnote relating to "mechanics" is added: "A detailed statement of the rates of wages paid and the method of payment to each class of mechanics, by the name by which they are usually known, as carpenter, engineer, etc., is highly desirable, and should be made on the blank page opposite."]

Number of days during the year when the mines or works were idle or were running on short time, giving causes of idleness or short time, and the number of days idle or mining on short time for each cause.

NOTE.—In stating the amount of capital there should be included not only the amount of capital actually invested in the business, as in lands, leases, mineral rights, rights of way, private railroads, buildings, tools, and all other forms of property, but also that used in carrying on the business. This statement, to be complete, should include as capital all money borrowed, as well as accounts having a long time to run. The idea is to get returned as capital all money invested and used in the business, whether owned by the party making the return or borrowed. The value of land, fixtures, etc., should be estimated at what they are worth or would cost in 1890.

### CAPITAL.

Total capital (real and personal) invested in lands, leases, mines, improvements, etc., and employed in business:

Distributed as follows:

In land.

In buildings and fixtures.

In tools, implements, live stock, machinery, and supplies on hand.

In cash (including all items not reported in the foregoing items).

[Inquiries numbered 14 to 17, inclusive, in special schedule No. 1 are common to this schedule and are not here reproduced.]

### SPECIAL SCHEDULE No. 11.—PRECIOUS STONES.

PRODUCTION OF ROUGH PRECIOUS STONES, GEMS, AND ORNAMENTAL STONES IN THE UNITED STATES IN 1889.

Name of finder.	Post-office address of finder.	Name and post-office address of present owner.	Names of stones found.	Number of stones found.	Total value of stones before cutting.	Value after cutting into gems.	Value after cutting into watch jewels.	Value after cutting into cabinet specimens, polished on one or more sides.
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

## LABOR AND WAGES.

In cutting and polishing:

Description.	Diamonds.	Rubies, sapphires, and all stones not elsewhere specified.	Agate, moss-agate, jasper, etc.
Amount of material cut .....			
Value of above material .....			
Weight of above material .....			
Number of men employed .....			
Average wages per day (a) .....			
Number of boys employed .....			
Average wages per day (a) .....			

a Wages must include value of board or rent furnished as part compensation.

Wages:

Total amount of wages paid all classes during 1889.

Number of days during the year when the cutting outfit was idle, and the cause.

## CAPITAL.

Total value of cutting outfit:

Distributed as follows:

In buildings and fixtures.

In tools, implements, machinery, and supplies on hand.

In cash (not reported in the foregoing items).

Power used in cutting:

Number and total horsepower of steam boilers: No.; horsepower.

Number and size of cylinders of steam engines.

If other power, state kind.

Number of motors; horsepower.

Total value of supplies and materials of all kinds consumed during the year 1889.

Total of all other expenditures for the establishment (including amounts paid for rent, taxes, insurance, interest, etc.).

NOTE.—Remarks concerning the methods of cutting employed, etc., will be gladly received, and should be noted on the blank pages.

Names and addresses of other producers or cutters of precious stones, gems, or ornamental stones:

Names.	Addresses.	Character of stones produced.
(a)	(a)	(a)

a Several blank lines are printed in schedule.

## SPECIAL SCHEDULE No. 12.—COAL MINES.

[Inquiries numbered 1 to 4, inclusive, in special schedule No. 1 are common to this schedule (except that in inquiry 2 the following item is added: Name and distance of nearest railroad station) and are not here reproduced.]

Character of coal produced:

(Whether anthracite, semibituminous, bituminous, or lignite.)

## PRODUCT.

NOTE.—Use the long or short ton or other unit, according to your usual custom, but state definitely the number of pounds in the unit used. If any calculations are made, such as determining the total value of the product from the price per ton or bushel, it is requested that such calculations be made on the blank pages of this schedule. These blank pages may also be used for any remarks explanatory of the answers given.

Total product of coal of all grades in the year ended December 31, 1889.

## 592 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## Disposition of total product:

- (a) Loaded at mines for shipment on railroad cars and boats.
- (b) Sold to local trade at mines.
- (c) Used by employees.
- (d) Used for steam, ventilating, and heating purposes by operator at mines.
- (e) Manufactured into coke.

Maximum production for any month during 1889, with name of month.

Total amount received for coal sold in 1889.

Average price of coal on cars at the mine. (If price is made at a distance from the mine, the freight should be mentioned.)

[Inquiries numbered 9 to 17, inclusive, in special schedule No. 1 are common to this schedule (except that in inquiry 16 an additional question is asked under "if other power," etc., as to "Number and kind of mining machines") and are not here reproduced.]

## SPECIAL SCHEDULE No. 12a.—COAL MINES.

## (Distribution of coal for consumption.)

## COAL TRANSPORTED BY RAILROADS.

Inquiries.	Mined on line of road.		Received from connecting lines.	
	Anthracite.	Bituminous.	Anthracite.	Bituminous.
1. Quantity delivered for consumption to all stations on your line in the state of— (a) .....				
2. Quantity delivered to connecting lines: (a) .....				
3. Quantity delivered to shipping wharves for subsequent water transportation: (a) .....				
Total tonnage.....				
4. Quantity delivered for consumption at each of the following points: (a) .....				

a Several blank lines following each inquiry are printed in schedule.

*Special instructions.*

For item 1 give in the proper columns the aggregate quantity of coal delivered to stations on your line for *local consumption there*, including engine supply and all coal for company use.

If your road traverses two or more states, give quantity separately for each state. For item 2 give quantity delivered to each connecting line, with name of road and point of transfer.

For item 3 give name or location of port or wharves, and quantity delivered at each. For item 4, although included in the aggregate of item 1, it is desired that the quantity delivered for consumption at each of the places named be given separately.

Give figures in tons, and note at foot of page the number of pounds in the ton as used by you.

## COAL TRANSPORTED BY CANALS AND INLAND WATERWAYS.

Inquiries.	Received direct from mines.		Received from other transportation lines.	
	Anthracite.	Bituminous.	Anthracite.	Bituminous.
1. Quantity delivered for consumption to points in the state of—(a) .....				
2. Quantity delivered for further transportation by rail at—(a) .....				
Total.....				
3. Quantity delivered for consumption at each of the following points: (a) .....				

a Several blank lines following each inquiry are printed in schedule.

*Special instructions.*

For item 1 give in the proper columns the aggregate quantity of coal delivered or forwarded by you for local consumption at destination, giving aggregate quantity for each state separately.

For item 2 give quantity delivered at ports or wharves for further transportation, naming delivery points and quantity to each.

Item 3. Although the coal covered by this item is included in the aggregate of item 1, it is desired that the quantity delivered for consumption at each of the places named be given separately.

Give figures in tons, and note at foot of page the number of pounds in the ton as used by you.

## COAL SHIPPED BY VESSEL OR RAIL FROM PORTS AND WHARVES.

Inquiries.	Shipped by water.		Shipped by rail.	
	Anthracite.	Bituminous.	Anthracite.	Bituminous.
1. Quantity shipped to domestic points, as follows: (a) .....				
2. Quantity shipped to foreign ports, as follows: (a) .....				

a Several blank lines following each inquiry are printed in schedule.

*Special instructions.*

For item 1 give in the proper columns the aggregate quantity of coal shipped or transferred at your port.

If shipped by vessel, give points of destination and aggregate quantity to each point.

If delivered direct to a railroad, give name of road and quantity so delivered.

For item 2 give aggregate of shipments to each foreign port.

Give figures in tons, and note at foot of page the number of pounds in the ton as used by you.

## SPECIAL SCHEDULE No. 13.—QUICKSILVER MINES AND REDUCTION WORKS.

[Inquiries numbered 1 to 4, inclusive, in special schedule No. 1 are common to this schedule and are not here reproduced.]

Number of furnaces in operation in December, 1889.

Number of furnaces not in operation in December, 1889.

## PRODUCT.

NOTE.—Use the short ton of 2,000 pounds. If any calculations are made, such as determining the total value of the supplies, etc., it is requested that such calculations be made on the blank pages of this schedule. These blank pages may also be used for any remarks explanatory of the answers given.

Total number of tons of ore produced in the year ended December 31, 1889.

Total number of tons of ore roasted in the year ended December 31, 1889.

Total number of tons of quicksilver produced in 1889.

Total number of flasks of quicksilver produced in 1889.

Average percentage yield of quicksilver from ore roasted in 1889.

[Inquiries numbered 9 to 12, inclusive, in special schedule No. 1 are common to this schedule and are not here reproduced.]

## CAPITAL.

Total value of mines and improvements as at present developed:

Distributed as follows:

In mines and real estate.

In furnaces, houses, and other surface improvements.

In machinery, supplies on hand, tools, and live stock.

In quicksilver unsold January 1, 1889: No. of flasks; value.

In bills and accounts receivable.

In any other assets.

NOTE.—In stating the amount of capital there should be included the capital invested in the business, as in lands, leases, mineral rights, rights of way, private

## 594 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

railroads, buildings, tools, and all other forms of property. This statement, to be complete, should include as capital all accounts having time to run. The idea is to get returned as capital all money invested and used in the business, whether owned by the party making the return or borrowed. The value of land, fixtures, etc., should be estimated at what they are worth or would cost on January 1, 1890, and quicksilver unsold should include all at works or elsewhere at that date.

[Inquiries numbered 14 to 17, inclusive, in special schedule No. 1 are common to this schedule and are not here reproduced.]

### SPECIAL SCHEDULE No. 14.—CRUDE PETROLEUM.

**NOTE.**—The questions asked in this schedule relate only to the production of crude petroleum, its storage at the wells, and its distribution from the wells. It is not intended to include any statements regarding refineries, the transportation of petroleum from the wells by pipe lines, or the storage of petroleum by the pipe lines or at refineries. Special schedules will be furnished for these statements.

#### LOCATION.

Location of wells reported in this schedule:

Oil district, if known by any special name:

[1 blank line.]

City, town, or township; county; state.

**NOTE.**—It is desired, if parties own wells in more than one city, town, or township, that separate returns be made for each city, town, etc. When this is not possible, please report the production of each county separately. Additional schedules will be furnished, if desired.

Name and post-office address of company, corporation, or individual operating the wells.

#### PRODUCTION.

Product by months:

Months.	Crude, for illuminating. (Barrels of 42 gallons.)	Crude, for lubricating. (Barrels of 42 gallons.)	Fuel oil. (Barrels of 42 gallons.)	Total. (Barrels of 42 gallons.)
1889.				
January.....				
February.....				
March.....				
April.....				
May.....				
June.....				
July.....				
August.....				
September.....				
October.....				
November.....				
December.....				
Total.....				

Total value at wells of all oil produced, excluding pipage:

Illuminating.

Lubricating.

Fuel oil.

Total.

Stocks at wells:

**NOTE.**—In this table give only stocks at wells, not including any stocks that may be held by you in pipe lines and represented by pipe-line certificates. If you have a pipe line and tanks away from wells for your exclusive use, make report of same on a schedule that will be furnished for that purpose. Please be careful to distinguish between good merchantable oil and sediment (B. S.).

## Stocks at wells—Continued.

Months.	Total merchantable crude.			Total sediment (B. S.)— (Barrels of 42 gallons.)	Total stock. (Barrels of 42 gallons.)
	Illuminating. (Barrels of 42 gallons.)	Lubricating. (Barrels of 42 gallons.)	Fuel oil. (Barrels of 42 gallons.)		
1888.					
December 31.....					
1889.					
January 31.....					
February 28.....					
March 31.....					
April 30.....					
May 31.....					
June 30.....					
July 31.....					
August 31.....					
September 30.....					
October 31.....					
November 30.....					
December 31.....					
Average.....					

Value of stock on hand at wells December 31, 1889:

Illuminating.

Lubricating.

Fuel oil.

Total.

Distribution of product:

Under this head please give a statement as to what has become of oil produced.

Stocks at wells December 31, 1888.

Produced in 1889.

Total.

Stock December 31, 1889.

Distribution in 1889:

Delivered to pipe lines.

Dump oil.

Run to waste.

Evaporated.

Burned by lightning, fire, etc., at wells, and not included in general average of pipe lines.

Remaining on hand December 31, 1889.

Total.

## LABOR AND WAGES.

Total number of persons employed and wages paid in 1889:

All labor not including office force:

Number of foremen or overseers.

Total wages paid all workmen of this class in 1889.

Number of mechanics.

Total wages paid all workmen of this class in 1889.

Number of laborers.

Total wages paid all workmen of this class in 1889.

Boys under 16 years.

Total wages paid all boys under 16.

Office force:

Males—total number; total wages paid.

Females—total number; total wages paid.

NOTE.—Where two or more groups of wells with distinct organizations, and reported on separate census schedules, are directed and paid from one central office, the employees of such central office are not to be included in the table above. Please state, on the blank page opposite, the total number of males and females and their total yearly earnings, together with the names of the wells with whose administration such persons are connected.

# 596 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## Wages paid for labor:

In building rigs.  
In drilling wells.  
In operating and caring for wells.  
In torpedoing wells.  
In building or repairing tankage.  
In building and repairing pipe lines.  
In office.

Total as above.

## Classified wages:

NOTE.—It is earnestly desired that the following table be filled out with as much detail as possible. In the first column give the classes of employees by the name by which they are usually known, as carpenter, driller, engineer, etc.; in the second, the average number of employees of each class; and in the others, wages, earnings, etc.

Classes of employees.	Number of each.	Wages when men are paid by day.	Wages per foot, etc., when men are paid by the piece.	Earnings of piece-workers.	Days employed in year.
(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

Was production stopped during the year? If so, for how long a period, and what was the cause?

## Operating and caring for wells:

Total value of all materials used in pumping, operating, and caring for wells.

## CAPITAL.

NOTE.—In stating the amount of capital, there should be included not only the amount of capital actually invested in the business, as in lands, leases, mineral rights, rights of way, private railroads, buildings, tools, and all other forms of property, but also that used in carrying on the business. This statement, to be complete, should include as capital all money borrowed, as well as accounts having a long time to run. The idea is to get returned as capital all money invested and used in the business, whether owned by the party making the return or borrowed. The value of land, fixtures, etc., should be estimated at what they are worth or would cost in 1890. If land is leased, estimate its value as oil territory as near as may be, and include amount in answer.

Total capital (real and personal) invested in lands, wells, leases, etc., and employed in the business.

Number of acres of oil land:

Owned.

Leased.

Total acreage.

Present value of land, both owned and leased.

Value of rigs, wells, engines, boilers, etc.

Value of tanks.

Value of tank cars.

Value of pipe lines at wells owned by party making report.

Value of oil in stock at wells, December 31, 1889.

Value of other property and improvements.

Total.

## Rigs:

Total number of rigs building but not completed—

December 31, 1888; January 1, 1889; February 28, 1889; March 31, 1889; April 30, 1889; May 31, 1889; June 30, 1889; July 31, 1889; August 31, 1889; September 30, 1889; October 31, 1889; November 30, 1889; December 31, 1889.

Total value of materials used in building rigs.

Total number of rigs completed during—

January, 1889; February, 1889; March, 1889; April, 1889; May, 1889; June, 1889; July, 1889; August, 1889; September, 1889; October, 1889; November, 1889; December, 1889.

Total cost of rigs built in 1889.

## Wells:

## Total number of wells drilling—

December 31, 1888; January 31, 1889; February 28, 1889; March 31, 1889;  
 April 30, 1889; May 31, 1889; June 30, 1889; July 31, 1889; August 31, 1889;  
 September 30, 1889; October 31, 1889; November 30, 1889; December 31,  
 1889.

Total value of materials used in drilling wells.

## Completed wells:

In the following table please give total number of wells completed during each month in 1889, how many were dry, how many producing, and the initial daily product of new wells.

Months.	Total number of wells completed in each month.	Number of dry holes.	Number of wells producing.	Initial daily production of new wells.
1889.				
January.....				
February.....				
March.....				
April.....				
May.....				
June.....				
July.....				
August.....				
September.....				
October.....				
November.....				
December.....				
Total.....				

## Producing wells:

In the following table give total number of producing wells and number pumping or flowing, together with number of wells that were abandoned; that is, ceased producing during the year.

Months.	Total number producing.	Number pumping	Number flowing.	Total number abandoned.
1888.				
December 31.....				
1889.				
January 31.....				
February 28.....				
March 31.....				
April 30.....				
May 31.....				
June 30.....				
July 31.....				
August 31.....				
September 30.....				
October 31.....				
November 30.....				
December 31.....				
Total.....				

If wells were abandoned, what was the cause?

Were any wells that had ceased producing cleaned out and retubed during the year?

If so, please give the number, and the result of the cleaning out.

Number of wells torpedoed during the year.

Cost of torpedoing.

## Tankage:

Please give character and capacity of tankage at wells, giving size, material, and capacity of each.

Number.	Size.		Material (as wood, iron, etc.).	Capacity (barrels of 42 gallons).
	Diameter.	Height.		
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

## 598 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### Tankage at wells:

Total value of materials used in building or repairing tanks in 1889.

### Transportation at wells:

Total value of all materials, as pipe, couplings, etc., used in building or repairing pipe lines at wells in 1889.

Total value of all materials used in building or repairing tank cars in 1889.

### Pipe lines at wells:

Total length of pipe lines at wells, not including that belonging to pipe-line companies (feet).

Total value.

Sizes of same, and length of each size.

NOTE.—Remarks as to the sand or other strata from which the oil is produced, depth of the wells, diameter of holes drilled, cost of drilling per running foot, character of rigs used, character of petroleum produced, special uses for which it is adapted, etc., will be gladly received, and should be included on the blank pages of this schedule.

## SPECIAL SCHEDULE No. 15.—NATURAL GAS.

### LOCATION.

#### Location of wells reported in this schedule:

Natural gas district, if known by any special name.

City, town, or township; county; state.

NOTE.—It is desired, if parties own wells in more than one city, town, or township, that separate returns be made for each city, town, etc. When this is not possible, please report for the wells of each county separately. Additional schedules will be furnished if desired.

What cities, towns, or villages are supplied by you, either in whole or in part, with natural gas?

Name and post-office address of company, corporation, or individual operating the wells.

### PRODUCTION.

NOTE.—Please give as complete and exact statements as possible regarding production during the year 1889. It is conceded that this will be difficult to do, but it is hoped that as exact an answer as is possible will be given to the following questions: Total production of wells during the year ending December 31, 1889, cubic feet:

Amount consumed in useful work, cubic feet.

Went to waste, cubic feet.

The amount consumed in useful work was distributed as follows:

Domestic uses: No. of fires; cubic feet consumed.

Iron rolling mills: No. of works supplied; cubic feet consumed.

Steel works: No. of works supplied; cubic feet consumed.

Glass works: No. of works supplied; cubic feet consumed.

Other establishments: No. of works supplied; cubic feet consumed.

#### Value of gas produced and used:

NOTE.—In answering this question the best measure of the value of gas produced is the actual amount charged consumers. Where gas is given away, as is the case in many localities, estimate the value of the gas used by the parties receiving it gratis. The best way to reach this value, when but little gas is sold, is to estimate how much coal or wood would be used to do the work—that is, to supply the same number of fires, to make the same amount of iron or glass, to fire the same number of boilers, etc.—and regard the value of this coal as the value of the gas.

Total actual selling price or value, as estimated above, of all gas produced and used for the year ending December 31, 1889.

How much coal would have been required to do the same work; tons?

What would have been the value of this coal?

### LABOR AND WAGES.

Total number of persons employed and total wages paid in 1889:

Number; (a) total wages. (b)

a In giving the number of men employed include those employed by contractors and subcontractors, as well as by the company itself.

b Wages must include value of board or rent furnished as part compensation.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 599

Total number of persons employed and total wages paid in 1889—Continued.

Details of above:

Number of foremen or overseers.

Total wages paid to all workmen of this class in 1889.

Number of mechanics.

Total wages paid to all workmen of this class in 1889.

Number of laborers. (a)

Total wages paid to all workmen of this class in 1889

Number of boys under 16 years.

Total wages paid to all boys in 1889.

Office force: (b)

Males—total number; total wages.

Females—total number; total wages.

## RATES OF WAGES.

Class of employees:

It is earnestly desired that the following table be filled out with as much detail as possible. In the first column give the classes of employees by the name by which they are usually known, as carpenter, driller, engineer, etc. Include not only men at wells, but pipe-line and station men, valve men, fitters, etc.

Classes of employees.	Number of each class.	Wages where men are paid by the day.	Wages per foot, etc., where men are paid by the piece.	Earnings of piece workers.	Days employed in year.
(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

Was drilling stopped during the year? If so, for how long a period, and what was the cause?

Was production stopped during the year? If so, for how long a period, and what was the cause?

## CAPITAL.

NOTE.—In stating the amount of capital there should be included not only the amount of capital actually invested in the business, as in lands, leases, mineral rights, rights of way, private railroads, buildings, tools, and all other forms of property, but also that used in carrying on the business. This statement, to be complete, should include as capital all money borrowed as well as accounts having a long time to run. The idea is to get returned as capital all money invested and used in the business, whether owned by the party making the return or borrowed. The value of lands, leases, gas rights, wells, pipe lines, and all real and other property should be estimated at what they are worth or would cost in 1890. If land is leased, estimate its value as gas territory, as near as may be, and include this value in answer. These questions are intended to get at the value of property, which may be more or less than capital.

Total capital invested in lands, wells, pipe lines, etc., and used in business:

Number of acres of natural-gas land:

Owned.

Leased.

Total acreage.

Present value of land, both owned and leased.

Value of rigs, wells, engines, boilers, etc.

Value of pipe lines, including rights of way.

Value of all other property and improvements.

Total.

a Laborers include watchmen, teamsters, and all workmen not otherwise classified in the schedule.

b Where two or more groups of wells with distinct organizations, and reported on separate census schedules, are directed and paid from one central office, the employees of such central office are not to be included in the table above. Please state on the blank page opposite the total number of males and females and their total yearly earnings, together with the names of the wells with whose administration such persons are connected.

# 600 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## Wells:

### Total number of wells drilling—

December 31, 1888; January 31, 1889; February 28, 1889; March 31, 1889;  
April 30, 1889; May 31, 1889; June 30, 1889; July 31, 1889; August 31, 1889;  
September 30, 1889; October 31, 1889; November 30, 1889; December 31,  
1889.

### COMPLETED WELLS.

In the following table please give total number of wells completed during each month in 1889, how many were dry, how many producing, the initial pressure, and estimated daily production of new wells:

Months.	Total number of wells completed in each month.	Number of dry holes.	Number of wells producing.	Initial pressure of new wells (pounds).	Estimated daily production of new wells (cubic feet).
1889.					
January .....					
February .....					
March .....					
April .....					
May .....					
June .....					
July .....					
August .....					
September .....					
October .....					
November .....					
December .....					
Total .....					

State if pressure was closed or flowing.

Total cost of drilling wells in 1889, including cost of rigs, drivepipe, casting, and tubing.

Of this total cost state—

The amount of wages paid labor.

Cost of material.

### PRODUCING WELLS.

In the following table give total number of producing wells, together with number of wells that were abandoned—that is, ceased producing—during the year:

Months.	Total number producing.	Total number abandoned.
1888.		
December 31 .....		
1889.		
January 31 .....		
February 28 .....		
March 31 .....		
April 30 .....		
May 31 .....		
June 30 .....		
July 31 .....		
August 31 .....		
September 30 .....		
October 31 .....		
November 30 .....		
December 31 .....		
Average:		Total:

If wells were abandoned, what was the cause?

Were any wells that had ceased producing cleaned out and retubed during the year? If so, please give number and the result of cleaning out.

Number of wells torpedoed during year; cost of torpedoing.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 601

## Pressure:

Please give such facts relative to well pressure as may be of interest, especially with reference to the flowing and closed pressure of the wells when first struck, and statements as to changes in this pressure during the year.

## Charges to consumers:

Please give rates charged to consumers for gas. If you have printed tables of rates, please inclose copies, stating whether these are adhered to or discounted. Make the answer as full and complete as possible.

## Pipe lines:

In the following table give number of feet of each size of pipe laid prior to January 1, 1889, and up to and including December 31, 1889:

Size of pipe (inches).	Total number of feet laid prior to Jan. 1, 1889.	Total number of feet laid up to and including Dec. 31, 1889.	Size of pipe (inches).	Total number of feet laid prior to Jan. 1, 1889.	Total number of feet laid up to and including Dec. 31, 1889.
(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

## Materials used:

Total value of materials used in building rigs.

Total value of materials used in drilling wells.

Total value of all materials used in operating, shutting in, and caring for wells.

Total value of all materials, as pipe, couplings, etc., used in building or repairing pipe lines in 1889.

Total value of all materials used in fitting.

Number of torpedoes used; value.

Total value of all other materials.

## Exhaustion of district:

Please give such facts as you may have relative to the giving out of wells, reduction of pressure, etc., that will bear upon the question of the exhaustion of gas in your district.

NOTE.—Remarks as to the sand or other strata from which the gas is produced, depth of wells, diameter of holes drilled, cost of drilling per running foot, character of rigs used, character of gas produced, character of petroleum accompanying the gas, special uses for which the gas is adapted, etc., will be gladly received, and should be included on the blank pages of this schedule.

## PETROLEUM PRODUCED.

## Product by months:

(If you produced any petroleum from gas wells during the year, please fill out the table below. A separate schedule will be sent if you have petroleum wells as well as gas wells.)

Months.	Crude, for illuminating (barrels of 42 gallons).	Crude, for lubricating (barrels of 42 gallons).	Fuel oil (barrels of 42 gallons).	Total (barrels of 42 gallons).
1889.				
January.....				
February.....				
March.....				
April.....				
May.....				
June.....				
July.....				
August.....				
September.....				
October.....				
November.....				
December.....				
Total.....				

## 602 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Total value at wells of all oil produced, excluding pipage:

Illuminating.

Lubricating.

Fuel oil.

Total.

Stocks at well.

Value of stock on hand at wells December 31, 1889.

Distribution of product.

Distribution in 1889.

[Inquiries under these four headings in special schedule No. 14, relating to "crude petroleum," are common to this schedule and are not here reproduced.]

### TANKAGE.

Please give character and capacity of tankage at wells, giving size, material, and capacity of each:

Number.	Size.		Material (as wood, iron, etc.).	Capacity (barrels of 42 gallons).
	Diameter.	Height.		
(a)	(a)	(a)	(a)	(a)

<sup>a</sup> Several blank lines are printed in schedule.

Total value of tankage.

How many tank cars are owned by you and used in the freighting of crude petroleum?

Value of same.

### SPECIAL SCHEDULE No. 16.—STONE QUARRIES.

[Inquiries numbered 1 to 4, inclusive, in special schedule No. 1 are common to this schedule (except that the word "quarry" instead of "mines or works" is used) and are not here reproduced.]

Character of stone produced:

Popular name (a).

Scientific name.

Purposes for which the product is used.

### PRODUCT.

NOTE.—Use the cubic foot, cubic yard, perch, long or short ton, or whatever unit you customarily employ, but state distinctly which you use. If any calculations are made, such as determining the total value of the product from the prices received, it is requested that such calculations be made on the blank pages of this schedule, which may also be used for remarks and explanations of answers to the questions.

Total product of stone of all grades during the year ended December 31, 1889:

Amounts applied to each of the different uses.

Total value of the above product.

NOTE.—This is determined by the selling price at the quarry, of whatever products the operator disposes of, whether rough or manufactured.

### LABOR AND WAGES.

Classification.	Average number employed. (b)	Average wages per day. (c)	Average number of days' work made by each class during the year.
Labor (not including office force):			
Foremen or overseers .....			
Quarrymen .....			
Mechanics .....			
Laborers (c) .....			
Boys under 16 .....			

<sup>a</sup> In giving the number of men employed include those employed by contractors and subcontractors, as well as by the company itself.

<sup>b</sup> Wages must include value of board or rent furnished as part compensation.

<sup>c</sup> Laborers include watchmen, teamsters, and all workmen not otherwise classified.

<sup>a</sup> Give, as the popular name, that under which the stone is sold.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 603

[Inquiries numbered 10 to 17, inclusive, on special schedule No. 1 are common to this schedule (except that the word "quarry" is used instead of "mines") and are not here reproduced.]

NOTE.—Remarks showing the uses for which your product has proved especially valuable, tests of strength, analyses, etc., will be gladly received and should be made upon the blank pages of this schedule.

## SPECIAL SCHEDULE No. 17.—MINERAL WATERS.

### LOCATION.

Name of springs:

Former name, if the springs have ever been known by any other name.

Location of springs:

County; state.

Name and post-office address of company, corporation, or individual operating the springs.

Name and post-office address of resident superintendent or agent.

Total number of individual springs.

Is the water on sale in the market?

Number of springs from which water is taken for sale.

Total capacity of springs used commercially.

Are the springs used as a resort?

Character of springs.

Analysis.

Date of analysis.

Name of analyst.

How is the water shipped (bottled or barreled)?

### PRODUCT.

Total product for the year ended December 31, 1889: (Estimate if no account is kept.)

Number of gallons sold.

Number of barrels sold.

NOTE.—Give the above amount in gallons, if possible; if barrels are used, state their capacity and number. If the water is evaporated, and only the mass or evaporated material is sold, state its amount and fill in the number of gallons evaporated.

Average price per gallon at the springs.

Total value of the product sold, determined by the selling price at the springs, or wherever the water is disposed of.

### LABOR AND WAGES.

Classification.	Average number employed. (a)	Average wages per day. (b)	Average number of days' work made by each class during the year.
Labor (not including office force):			
Foremen or overseers .....			
Mechanics .....			
Laborers (c) .....			
Boys under 16 .....			

a In giving the number of men employed include those employed by contractors and subcontractors, as well as by the company itself.

b Wages must include value of board or rent furnished as part compensation.

c Laborers include watchmen, teamsters, and all workmen not otherwise classified in the schedule.

[Inquiries numbered 10 to 17, inclusive, in special schedule No. 1 are common to this schedule (except that the word "springs" is used instead of "mines or works") and are not here reproduced.]

## SPECIAL SCHEDULE No. 18—COPPER SMELTERS AND REFINERS.

### LOCATION.

Name of works.

Location of works:

Town; county; state.

## 604 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Name and post-office address of company, corporation, or individual operating the works.

Name and post-office address of resident superintendent or agent.

### PRODUCT.

NOTE.—State definitely the number of pounds in all the units used. If any calculations are made, such as determining the total value of the product, etc., it is requested that such calculations be made on the blank pages of this schedule. These blank pages may also be used for any remarks explanatory of the answers given.

Total amount of black copper or refined copper produced in the year ended December 31, 1889.

Total amount of matte produced in 1889.

Total fine copper contents of above.

Total stock on hand or in transit:

January 1, 1889 (pounds fine).

January 1, 1890 (pounds fine).

Total value of ore, matte, or mineral treated.

### LABOR AND WAGES.

Classification.	Average number employed. (a)	Average wages per day. (b)	Average number of days' work made by each class during the year.
Labor (not including office force):			
Foremen or overseers .....			
Mechanics .....			
Laborers (c) .....			
Boys under 16 .....			

a In giving the number of men employed include those employed by contractors and subcontractors, as well as by the company itself.

b Wages must include value of board or rent furnished as part compensation.

c Laborers include watchmen, teamsters, and all workmen not otherwise classified.

[Inquiries numbered 10 to 15, inclusive, in special schedule No. 1 are common to this schedule (except that the word "works" is used instead of "mines or works") and are not here reproduced.]

Total value of supplies and materials consumed during the year 1889, exclusive of ore.

Total of all other expenditures for the works (including amounts paid for rent, taxes, insurance, interest, etc.).

### SPECIAL SCHEDULE No. 19.—LEAD SMELTERS AND REFINERS.

#### LOCATION.

[Inquiries under this heading in special schedule No. 18, relating to copper smelters and refiners, are common to this schedule and are not here reproduced.]

#### PRODUCT.

NOTE.—If any calculations are made, such as determining the total value of the product, it is requested that such calculations be made on the blank pages of this schedule. These blank pages may also be used for any remarks explanatory of the answers given.

Total product of base bullion in the year ended December 31, 1889 (net tons of 2,000 pounds).

Total stock of base bullion on hand or in transit:

January 1, 1889 (net tons of 2,000 pounds).

January 1, 1890 (net tons of 2,000 pounds).

Quantity of ore treated.

Total value of ore treated.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 605

## LABOR AND WAGES.

Classification.	Average number employed. (a)	Average wages per day. (b)	Average number of days' work made by each class during the year.
Labor (not including office force):			
Foremen or overseers.....			
Mechanics.....			
Laborers (c).....			
Boys under 16.....			

a In giving the number of men employed include those employed by contractors and subcontractors, as well as by the company itself.

b Wages must include value of board or rent furnished as part compensation.

c Laborers include watchmen, teamsters, and all workmen not otherwise classified.

[Inquiries numbered 10 to 15, inclusive, in special schedule No. 1 are common to this schedule (except that the word "works" is used instead of "mines or works") and are not here reproduced.]

Total value of supplies and materials consumed during the year 1889, exclusive of value of ore.

Total of all other expenditures for the works (including amounts paid for rent, taxes, insurance, interest, etc.).

## SPECIAL SCHEDULE No. 20.—LEAD REFINERS.

### LOCATION.

[Inquiries under this heading in special schedule No. 18, relating to copper smelters and refiners, are common to this schedule and are not here reproduced.]

### PRODUCT.

NOTE.—If any calculations are made, such as determining the total value of the product, it is requested that such calculations be made on the blank pages of this schedule. These blank pages may also be used for any remarks explanatory of the answers given.

Total product of refined lead in the year ended December 31, 1889 (net tons of 2,000 pounds).

Total stock of refined lead on hand, in transit, and unsold in hands of agents:

January 1, 1889 (net tons of 2,000 pounds).

January 1, 1890 (net tons of 2,000 pounds).

Copper contents of matte or refined copper produced (pounds fine).

## LABOR AND WAGES.

Classification.	Average number employed. (a)	Average wages per day. (b)	Average number of days' work made by each class during the year.
Labor (not including office force):			
Foremen or overseers.....			
Mechanics.....			
Laborers (c).....			
Boys under 16.....			

a In giving the number of men employed include those employed by contractors and subcontractors as well as by the company itself.

b Wages must include value of board or rent furnished as part compensation.

c Laborers include watchmen, teamsters, and all workmen not otherwise classified.

[Inquiries numbered 10 to 15, inclusive, in special schedule No. 1 are common to this schedule (except that the word "works" is used instead of "mines or works") and are not here reproduced.]

Total value of supplies and materials of all kinds consumed during the year 1889, exclusive of matte, base bullion, or other source from which lead was refined.

Total of all other expenditures for the works (including amounts paid for rent, taxes, insurance, interest, etc.).

## 606 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### SPECIAL SCHEDULE No. 21.—ZINC REDUCTION WORKS.

#### LOCATION.

[Inquiries under this heading in special schedule No. 18, relating to copper smelters and refiners, are common to this schedule and are not here reproduced.]

#### PRODUCT.

NOTE.—If any calculations are made, such as determining the total value of the product, it is requested that such calculations be made on the blank pages of this schedule. These blank pages may also be used for any remarks explanatory of the answers given.

Total product of spelter or zinc in the year ended December 31, 1889 (net tons of 2,000 pounds).

Total stock of spelter or zinc on hand, in transit, and unsold in hands of agents:

January 1, 1889 (net tons of 2,000 pounds).

January 1, 1890 (net tons of 2,000 pounds).

Total quantity of ore treated.

Total value of ore treated.

#### LABOR AND WAGES.

Classification.	Average number employed. (a)	Average wages per day. (b)	Average number of days' work made by each class during the year.
Labor (not including office force):			
Foremen or overseers .....			
Mechanics.....			
Laborers (c) .....			
Boys under 16 .....			

<sup>a</sup> In giving the number of men employed include those employed by contractors and subcontractors as well as by the company itself.

<sup>b</sup> Wages must include value of board or rent furnished as part compensation.

<sup>c</sup> Laborers include watchmen, teamsters, and all workmen not otherwise classified.

[Inquiries numbered 10 to 15, inclusive, in special schedule No. 1 are common to this schedule (except that the word "works" is used instead of "mines or works") and are not here reproduced.]

Total value of supplies and materials of all kinds consumed during the year 1889, exclusive of value of ore.

Total of all other expenditures for the works (including amounts paid for rent, taxes, insurance, interest, etc.).

### FISH AND FISHERIES.

[At the census of 1840 the inquiries relating to the fisheries were contained in a "Schedule of Mines, Agriculture, Commerce, Manufactures, etc.," the complete heading for which is reproduced under the heading of "Agriculture."

At the censuses of 1850, 1860, and 1870 the inquiries relating to the fisheries were contained in a schedule entitled "Products of Industry," comprehending manufactures, mining, and the fisheries, reproduced under the heading of "Manufactures."

At the censuses of 1880 and 1890 the special schedules relating to fish and the fisheries called for a separate return for each person or establishment to which sent, and where the inquiries are tabular in form they have been so reproduced.]

#### CENSUS OF 1840.

[The subjoined inquiries were contained in a "Schedule of Mines, Agriculture, Manufactures, etc.," the full title of which is reproduced under the heading of "Agriculture."]

#### FISHERIES.

Number of quintals smoked or dried fish.

Number of barrels pickled fish.

Number of gallons spermaceti oil.

Number of gallons whale and other fish oil.

Value of whalebone and other productions of the fisheries.

Number of men employed.

Capital invested.

**CENSUS OF 1890.**

**RETURNS OF CIRCULARS RELATING TO FISH TRADE AND CONSUMPTION OF FISH.**

(Revised edition.)

Name of correspondent.  
 Official title or occupation.  
 Township, when different from post-office.  
 Name of post-office; county or parish; state or territory.

*A.—Fresh fish.*

Do fish constitute an important article of diet in your town and in the adjacent country?  
 Where is the supply obtained?  
 Check on the following list (a) the kinds commonly to be seen in the market.  
 What is the average retail price of fresh fish per pound?  
 What is the average retail price of beefsteak (round), and of roasting beef?  
 What is the average retail price of fresh and of salt pork?  
 What kinds of fish are taken from your ponds and streams?  
 Check on the following list (a).  
 Are any of these kinds obtained in considerable quantities?  
 If so, which?  
 How many fish-markets are there in your town? Give the names of the principal dealers.

*B.—Salt, smoked, and canned fish.*

Are salted and smoked fish sold?  
 What kinds? Check on the following list (a).  
 Where are the supplies obtained?

*C.—Oysters, clams, and lobsters.*

Are oysters brought to your place? Where are the supplies obtained?  
 How are they brought; in shell, in tubs, in cans raw, in cans cooked?  
 What is the average retail price?  
 Are clams brought to your place? Where are they obtained?  
 What is the average retail price?  
 Are fresh lobsters brought to your place?  
 Are cooked and canned lobsters brought to your place?  
 Where are they obtained, and what is the average retail price?

*D.—Fish guano.*

Is fish guano in any of its forms used by your farmers?

*E.—Fish culture.*

Please give the address of persons engaged in fish culture, if any.

**SPECIAL SCHEDULE.—CIRCULAR TO DEALERS IN FRESH FISH.**

How many fresh fish dealers are there in your place of residence?  
 From what place or places is the supply of fish obtained?  
 Please check, on the accompanying list, the kinds which are kept in your market, underlining those which are commonest.  
 What are the cheapest kinds? Please state average retail prices.  
 What are the most expensive kinds? State average retail prices.  
 Of what kinds of fish do you have an abundance in January?  
 Of what kinds of fish do you have an abundance in April?  
 Of what kinds of fish do you have an abundance in July?  
 Of what kinds of fish do you have an abundance in October?  
 What kinds are most generally used?

---

*a* List not reproduced.

## 608 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Is the sale of fish for Friday use much greater than for other days? Is it twice or three times as great?  
 Are fish sold through the neighboring country from peddler's carts? If so, where do they obtain their supply? How many carts do you think obtain their supply from your town?  
 Are fresh fish ever sold by retail grocers in your place? If so, at what seasons, and what kinds of fish?  
 Can you estimate the amount of capital invested in an average fish business in your town?  
 How many men are employed in the fish business in your town; including owners, clerks, and all other employees?  
 How much ice do you use in a year?

### SPECIAL SCHEDULE.—THE RIVER FISHERIES.

In your very kind reply to the circular relating to the fish trade, you stated that the supply is obtained from the ..... river. Will you please to return answers, on this sheet so far as possible, to the following:  
 Name of person answering; official title or occupation; township, if different from post-office; name of post-office; county or parish; state or territory.  
 At what places on the above-named river or its tributaries are fish taken by men who make fishing a business during any portion of the year?  
 During what portions of the year are men so engaged?  
 How many miles up the said stream or its tributaries do fish exist in such quantities as to induce men to fish for a living?  
 How far up is there tide water?  
 What dams or other obstructions are there?  
 What kinds of fish are taken?  
 In what quantities?  
 By what apparatus are the fish taken—by traps, weirs, pounds, nets, or hook and line? What boats are used, if any?  
 Please give post-office address of any men so engaged.  
 Estimate the amount caught by men for their own families or for pleasure.

### SPECIAL SCHEDULE.—RECORD OF RIVER FISHERIES.

Name of fishery.  
 Name of owner.  
 Name of operator.  
 Post-office address of operator.  
 Character of fishery.  
 Location of fishery:  
   River.  
     Distance from mouth of river—miles.  
 Date of establishment of fishery.  
 Dimensions of seine or net:  
   Length; depth; mesh; value.  
 Number of buildings—value.  
 Number of engines—power.  
 Number of boats—dimensions.  
 Number of men employed.  
 Number of women employed.  
 Number of horses employed.  
 Nationality of employees.  
 Name of recorder; post-office address of recorder.  
 Date.  
 Number of trawls made on this date.  
 Quantity of fish taken:

Kinds.	Number.	Weight (estimate).
Shad .....		
Branch or early herring .....		
Glut or late herring, or bluebacks .....		
Rock or striped bass .....		
Other fish .....		

Disposition of fish:

Sales and shipments.	Kind.	Quantity.	Value.
To local parties.....			
To .....			
To .....			

Remarks.

## SPECIAL SCHEDULE.—CIRCULAR TO DEALERS IN SALT FISH.

How many wholesale salt-fish dealers are there in your place of residence?

From what place or places is the supply of fish obtained?

Please check, on the following list (a), the kinds which you handle, underscoring those which you sell in considerable quantities.

Please give as good an estimate as you can of the quantity of each of the leading kinds handled in 1880.

What region of country is supplied with salt fish from your city? Please name states supplied, and proportion to each.

What do you consider the average capital invested by the wholesalers of salt fish in your city?

About how many men, including owners, clerks, laborers, etc., are connected with the wholesale establishments alluded to?

About how many retailers of salt fish are there in your city? What proportion of them are grocers? What proportion of them sell fresh fish also?

Name and address of firm giving information.

## CENSUS OF 1890.

## ATLANTIC AND GULF BOAT FISHERIES.

To .....; Town (or City); County; State.

## BOATMAN AND ASSISTANTS.

1. Names.	2. Age.	3. Where born.	4. White.	5. Colored.	6. Indian.	7. Natural- ized.
(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

Give above the name, age, and place of birth of yourself and assistants, and make cross-mark (thus ×) in number 4, 5, 6, or 7, showing whether "white," "colored," "Indian," or naturalized.

8. Janu- ary.	9. Febru- ary.	10. March.	11. April.	12. May.	13. June.	14. July.	15. August.	16. Septem- ber.	17. Octo- ber.	18. Novem- ber.	19. Decem- ber.

Make cross-mark (thus ×) under each month in above table in which you did boat fishing in the year 1889.

a List not reproduced.

## 610 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## FISH CAUGHT IN 1889.

Name or kind of fish.	36. Quantity.	37. Value.	Name or kind of fish.	36. Quantity.	37. Value.
20. Cod .....			29. Red snapper.....		
21. Hake .....			30. Grouper .....		
22. Haddock .....			31. Bluefish .....		
23. Halibut .....			32. Spanish mackerel .....		
24. Herring .....			33. ....		
25. Pollock .....			34. ....		
26. Mackerel .....			35. ....		
27. Pompano .....			38. Total .....		
28. Mullet .....					

## PROPERTY IN USE.

Name.	55. Number.	56. Value.	Name.	55. Number.	56. Value.
39. Sailboats.....			49. Trawls and lines .....		
40. Dories .....			50. Floats .....		
41. All other boats .....			51. Pounds .....		
42. Haul seines.....			52. Weirs .....		
43. Other seines .....			53. Pots.....		
44. Dip nets .....			54. Land, buildings, wharves, and floats..		
45. Set nets .....			57. Total .....		
46. Fyke nets .....					
47. Other nets .....					
48. Live boxes and cars .....					

NOTE.—Give quantity and value of all fish caught in 1889 in Nos. 36 and 37, adding names of fish not mentioned in blank lines 33 to 35. In Nos. 55 and 56 give number and value of all property used in 1889 as listed in Nos. 39 and 54, inclusive.

## SHELL FISH, OTHER CATCH, AND PRODUCTION DURING THE YEAR 1889.

Name.	118. Quantity.	119. Value.	Name.	118. Quantity.	119. Value.
58. Clams .....			89. Ballast .....		
59. Crabs .....			90. Gravel .....		
60. Crawfish .....			91. Sand .....		
61. Lobsters .....			92. Sea shells (for streets, etc.) .....		
62. Mussels (for food) .....			93. Seashells (ornaments) ..		
63. Quahaugs.....			94. Sea shells (animal food) .....		
64. Scallops .....			95. Cod oil made.....		
65. Shrimps .....			96. Seal oil made .....		
66. Turtles, green.....			97. Sunfish oil made .....		
67. Turtles, hawkbill .....			98. Porpoise oil made .....		
68. Turtles, loggerhead .....			99. Menhaden oil made .....		
69. Turtles, sea .....			100. Herring oil made.....		
70. Terrapin.....			101. Shark oil made .....		
71. Tongues and sounds.....			102. Alligator oil made .....		
72. Hake sounds.....			103. Other oil made .....		
73. Sounds of other fish .....			104. Other oil made.....		
74. Fish roe or spawn .....			105. Skins of seals.....		
75. Livers of codfish.....			106. Skins of alligators .....		
76. Livers of sharks .....			107. Teeth of alligators .....		
77. Livers of sturgeon .....			108. Bones of alligators .....		
78. Livers of other fish .....			109. .... (smoked) ..		
79. Fish and refuse (fertil- izers) .....			110. .... (salted) ..		
80. Fish sold for bait .....			111. .... (pickled) ..		
81. Skins of fish sold .....			112. ....		
82. Scales of fish sold .....			113. ....		
83. Mussels (for fertilizer) ..			114. ....		
84. Menhaden (for oil) .....			115. ....		
85. Sponge (kind) .....			116. ....		
86. Sponge .....			117. ....		
87. Irish moss (carrageen) ..					
88. Sea-float (fertilizer) .....					

120. How were you employed when not boat-fishing in 1889?

121. Give your average monthly earnings while fishing in 1889.

122. Give the average monthly earnings of assistants in 1889.

NOTE.—On lines 58 to 117 it is desired to obtain the quantity and value of any fish or product taken, caught, or obtained by you during the year ending December 31, 1889.

Fill in carefully, therefore, in column 118 the quantity, and in column 119 the value, of all included in your "catch" for that time.

Several kinds of oil are mentioned in lines 95 to 102. If you made other kinds of oil, give name, quantity, and value in lines 103 and 104.

No. 109 is intended for the quantity and value of fish smoked and sold by you. No. 110 is intended for the quantity and value of fish salted and sold by you. No. 111 is intended for the quantity and value of fish pickled and sold by you.

Every water, shore, or fish product of whatever name or kind, if of value, should be placed in the blank lines numbered 112 to 117, left for that purpose, with the quantity and value of each.

All *food fish* caught by you and *sold for food* not printed in the above table should be listed in the previous table.

If any item here accounted for has been previously mentioned in "fish caught," the fact should be noted, and in every case carefully give the quantity and value.

Return, in answer to No. 120, your employment during the year 1889 when not boat-fishing, in 121 your average monthly earnings while fishing in 1889, and in No. 122 the average monthly earnings of assistants in 1889, and state whether the assistants are paid by share or wages.

## INSTRUCTIONS.

Every boat fisherman should fill out one of these schedules after carefully reading it through and understanding what is wanted. This schedule is intended only for men who fish with undocumented boats (under 5 tons).

If assistance is required in making your answers to these questions, apply to customs officers, postmasters, your fitters, or the parties to whom you sell fish, any one of whom will, without doubt, cheerfully assist you.

Your whole fishing operations for the year 1889 should be returned. Where no records or books of account are kept you are expected to return estimates of quantities, etc., exercising your best judgment.

## FISHERIES OF THE GREAT LAKES.

To .....; Town (or City); County; State.

## VESSELS.

1. Name of vessel.		2. Rig.	3. Net tonnage.	4. When built.
(a)		(a)	(a)	(a)
5. Home port.	6. Original cost of vessel.	7. Present value of vessel.	8. Number of months employed in fishing in 1889.	9. Employment of vessel balance of year.
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

NOTE.—Every vessel of 5 tons and over employed by you during the year 1889 should be described above.

## CAPITAL INVESTED.

Classification.	22. Value.	Classification.	22. Value.
10. In stores, supplies, etc., on hand...		18. In salt-houses and salt .....	
11. In land .....		19. In fish and fish product on hand.	
12. In buildings .....		20. In other items not enumerated ..	
13. In machinery .....		21. Cash and credit capital, includ-	
14. In tools and implements .....		ing borrowed money, ledger	
15. In vessels and steamers .....		accounts, etc .....	
16. In wharves and floats .....		23. Total capital invested .....	
17. In ice-houses and ice .....			

NOTE.—Nos. 10 to 21 enumerate the several classes of investment in the fisheries. Carefully give in column 22 the value of each class in your business, and in No. 23 the total capital invested.

## APPARATUS USED.

Name.	38. Number.	39. Value.	Name.	38. Number.	39. Value.
24. Sailboats .....			33. Refrigerators, etc .....		
25. Other boats .....			34. Lines, etc .....		
26. Gill nets .....			35. Carts and wagons .....		
27. Fyke nets .....			36. Horses .....		
28. Pounds .....			37. Other apparatus .....		
29. Seines .....			40. Total value of ap-		
30. Lighters and scows .....			paratus .....		
31. Pile drivers .....					
32. Shipping cars .....					

NOTE.—Nos. 24 to 36 is a list of sundry kinds of apparatus used in connection with the fishery. Give the number of each kind used in your fishery in column 38, and the value in column 39.

## FISH PRODUCTS, ETC.

Name.	67. Quantity.	68. Value.	Name.	67. Quantity.	68. Value.
41. Whitefish .....			55. Sounds of fish .....		
42. Lake herring .....			56. Refuse for fertilizers ..		
43. Perch .....			57. Fish sold for oil .....		
44. Trout .....			58. Sand and gravel .....		
45. Bass .....			59. Beach rock (ballast) ..		
46. Sturgeon .....			60. Beach rock (paving) ..		
47. Catfish .....			61. Sea float .....		
48. Pike .....			62. Fish, etc., sold for lain-		
49. ....			glass .....		
50. ....			63. Fish, etc., sold for glue.		
51. ....			64. ....		
52. ....			65. ....		
53. ....			66. ....		
54. Roe or spawn .....					

NOTE.—The quantity and value of all fish caught and product obtained or sold during the year 1889 by your vessels should be shown in the table in lines numbered 41 to 66. Add all fish or product not named brought in by your vessels during the year. Every product of the water, of whatever name or kind, if of commercial value, should be accounted for here.

## PERSONS EMPLOYED.

69. Where born.	70. Fishermen.		71. Factory hands.	72. Shore help.	73. Clerks and store- keepers.	74. Total by nation- alities.
	Resident.	Non- resident.				
United States:						
White.....						
Colored.....						
Indians.....						
Canada and provinces.....						
Norway and Sweden.....						
Germany.....						
Great Britain.....						
Portugal.....						
75. Total in each class.....						
76. Average monthly earn- ings of each class.....						

77. Total amount earned or paid to all employees for the year 1889.

78. Number of employees (not including shore help, clerks, etc.) in the year 1889 between the ages of 18 and 45 years.

79. If any colored persons have money invested in your business or vessels, give the number and amount invested.

80. ....

NOTE.—Classify your employees by nationalities in Nos. 70 to 73, inclusive, adding such foreigners employed as are not mentioned. Fishermen should be classed in No. 70 as resident or nonresident of the county in which the business is carried on. Those foreigners who have been naturalized should be classed as citizens of the United States. No. 74 is the total by nationalities. Line 75 is the total employed in each grade or class. Line 76 is the average monthly earnings of each class of persons employed. Line 77 is the total amount earned or paid to all employees. Line 78 calls for the number of fishermen employed between the ages of 18 and 45 years.

## LOSSES AND DISASTERS.

81. Name of vessel lost.	82. Value.	83. Number of deaths among your fisher- men from accident or disaster during year ending De- cember 31, 1889.
(a)	(a)	(a)

a Several blank lines are printed in schedule.

NOTE.—Nos. 81, 82, and 83 should show the name and value of vessels in your employ lost during the year 1889, and the number of deaths from accident or disaster among your fishermen for the same time.

## OUTFIT AND EXPENSE IN 1889.

84. Cost of all outfit for vessels, including provisions, etc., for year.

85. Cost of repairs, including materials used.

86. Amount paid for interest and commissions.

87. Amount paid for taxes and insurance.

88. Amount paid for all other expenses (not including wages).

NOTE.—The outfit and expense for the year 1889 are called for under this title, lines 84 to 88. A vessel's outfit includes provisions, supplies, stores, bait, fishing gear, salt, barrels, ice, fuel, and all things necessary for the business and intended voyage.

## 614 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## FOOD-FISH PREPARATION.

Classification.	100. Basis. (a)	101. Number or quantity.	102. Value.
89. Fish packed in ice.....			
90. Pickled fish.....			
91. Smoke-cured fish.....			
92. Sun-dried fish.....			
93. Canned fish.....			
94. Boneless and prepared fish.....			
95. ....oil.....			
96. ....oil.....			
97. ....			
98. ....			
99. ....			

a "Basis" means "barrel," "gallon," "quintal," "box," "case," etc., as put up or sold.

103. Give principal markets for your fish and product.

NOTE.—Return the quantity and value of fish prepared, packed, or "put up" during the year 1889 in lines 89 to 94. Give name of oil manufactured by you in Nos. 95 and 96, with quantity and value. If the same fish or product is returned in more than one line under this title, to avoid duplication mention that fact. Lines 97, 98, and 99 are intended for other methods of preparation than here mentioned. No. 103 asks for the principal markets in which your product was sold.

## GENERAL INSTRUCTIONS.

This schedule will be placed in the hands of every person engaged in fisheries of the Great Lakes during the year 1889, and all persons interested in this important industry should be aware that careful and accurate returns will be needed in order that these fisheries may be properly represented in the coming census reports. It is hoped that this office will receive your cordial assistance, and that you will carefully fill in the answers to the questions in the schedule.

The information requested should cover your entire operations for the year ending December 31, 1889, as conforming most nearly to the "census year" and being the "fishing year." As to values or other information requiring a fixed date, the same should be given as it existed December 31, 1889. Fair market value should be given in all cases where values are requested.

Any information relative to the fisheries of importance and value to the investigation or in explanation of answers given to questions may be written on the blank page of the schedule.

In referring to questions in the schedule the number of the inquiry should be used.

## GULF FISHERIES.

To.....; Town (or City); County; State.

## CATCH IN 1889.

Classification.	Quantity.	Value.	Classification.	Quantity.	Value.
Bluefish.....			Terrapin.....		
Grouper.....			Shrimp.....		
Mullet.....			Coral.....		
Pompano.....			Shells.....		
Red snapper.....			Scales of fish.....		
Spanish mackerel.....			Fish for fertilizers.....		
Crab.....			Fish livers.....		
Crawfish.....			Sea float.....		
Clam.....			Beach rock, sand, gravel, etc.....		
Turtle.....					

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 615

## PERSONS EMPLOYED.

Where born.	Fishermen.		Shore help.	Where born.	Fishermen.		Shore help.
	Resident.	Non-resident.			Resident.	Non-resident.	
United States:				Great Britain and			
White .....				Ireland .....			
Colored .....				Sweden and Norway .....			
Indian .....				Spain and Portugal .....			
Canada and provinces .....				.....			

Average monthly earnings of fishermen.

Average monthly earnings of shore laborers.

Number of fishermen in your employ in 1889 between the ages of 18 and 45 years.

## VESSELS (5 TONS AND OVER).

Name of vessel.	Rig.	Net tonnage.	Original cost.	Present value.	Months engaged in fishing.	Employment balance of year.
(a)	(a)	(a)	(a)	(a)	(a)	(a)

a. Several blank lines are printed in schedule.

## CAPITAL INVESTED.

Classification.	Amount.	Classification.	Amount.
Vessels and outfit .....		Gill nets .....	
Land, buildings, and wharves .....		Cast nets .....	
Refrigerators .....		Selnes .....	
Stores, supplies, etc., on hand .....		Hand-lines .....	
Fish and products on hand .....		Pounds .....	
Cash and credit capital, including borrowed money, etc .....		Weirs .....	
Sailboats under 5 tons .....		Horses, carts, etc .....	
All other boats .....		Total value of property used...	

## LOSSES, ACCIDENTS, ETC.

Name of vessel lost.

Value.

Number of deaths from accidents or disasters during the year 1889 among your fishermen.

Principal markets for your fish in 1889.

Principal waters in which your fish were taken in 1889.

If any colored persons had capital in your business or vessels in 1889, give number and amount of investments.

## GENERAL INSTRUCTIONS.

This schedule will be placed in the hands of every person engaged in the general fisheries of the Gulf, and all interested in this important industry are informed that careful and accurate returns should be made, in order that these fisheries may be properly represented in the coming census reports. It is hoped that the Census Office will receive your cordial assistance, and that you will carefully fill in answers to the questions in the schedule.

The information requested should cover your entire operations for the year ending December 31, 1889, as conforming most nearly to the "census year" and being the "fishing year." As to values or other information requiring a fixed date, the same should be given as it existed December 31, 1889.

## 616 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## INLAND FISHERIES.

To .....; Town (or City); County; State.

1. Name.	2. White, colored, or Indian.	3. Where born.	4. Days.	5. Boats used.		6. Other apparatus used.		7. Estimated amount of fish taken, 1889.	
				No.	Value.	Kind.	Value.	No. lbs.	Value.
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
8. Fish taken, 1889.									
Kind.					Proportion of each.	9. Where taken.		10. Where sold.	
Bass .....									
Black bass .....									
Buffalo .....									
Catfish .....									
Drum .....									
Eel .....									
Mullet .....									
Perch .....									
Pickereel .....									
Pike .....									
Shad .....									
Sturgeon .....									
Sucker .....									
Sunfish .....									
Turtle .....									
Trout .....									
[4 blank lines.]									

a Several blank lines are printed in schedule.

## GENERAL INSTRUCTIONS.

This schedule should be filled for every person engaged in the inland fisheries. All persons interested in this industry should be aware that careful and accurate returns are needed for the coming census reports. It is hoped that this office will receive your cordial assistance.

Any information relating to this industry that may be thought of importance and value may be written on the blank page of this schedule.

Under 1 should be given the names of all persons engaged in fishing as a business. Under 2 put the letter "W," "C," or "I," to indicate the race. Under 3 should be given the country where the person was born. Under 4 should be stated the number of days in which each man was engaged in fishing during the year 1889. Under 5 should be specified the number and value of the boats, skiffs, canoes, or such other means of transportation used in fishing. Under 6 should be mentioned the kind and value of nets, hooks, and lines, or other apparatus. Under 7 is to be given the number of pounds and the value of the fish taken. If fishermen report the amount in bunches or any other dimension, please reduce it to pounds as near as possible. Under 8 are enumerated various kinds of fish which may be taken in your vicinity, and there are several blank lines in which can be inserted additional names. An estimate of the amount of each kind taken should be given. This may not be exact, but should be carefully estimated. If the amount can not be stated, estimate the proportion of all. Under 9 indicate the name of the river, bay, lake, or other body of water in which fish are taken. Under 10 state the name of the place where the fish are usually sold.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 617

## PACIFIC FISHERIES.

To .....; Town (or City); County; State.

### VESSELS.

1. Name of vessel.	2. Rig.	3. Net tonnage.	4. When built.
(a)	(a)	(a)	(a)

5. Home port.	6. Original cost of vessel.	7. Present value of vessel.	8. Weeks employed during year.	9. Employment balance of the year.
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

### CAPITAL INVESTED. (a)

Classification.	19. Value.	Classification.	19. Value.
10. Land, buildings, and wharves ....		16. Salt-houses and salt .....	
11. Machinery, tools, and implements .....		17. Other investments .....	
12. Stores, supplies, etc., on hand .....		18. Cash and borrowed capital .....	
13. Apparatus .....		20. Total capital invested .....	
14. Vessels and outfits .....			
15. Ice-houses and ice .....			

a Every asset in your business should be included in the above table. Long accounts and other aids to capital may properly be included in borrowed capital.

NOTE.—Nos. 10 to 18 cover the several classes of investment in the fisheries. Give the value under No. 19 of the several investments and the total capital invested in No. 20.

### APPARATUS USED.

Name.	29. Number.	30. Value.	Name.	29. Number.	30. Value.
21. Sailboats .....			27. Refrigerators .....		
22. Other boats .....			28. Other apparatus .....		
23. Drag nets .....			31. Total value of apparatus .....		
24. Fyke nets .....					
25. Seines .....					
26. Lines and trawls .....					

NOTE.—Nos. 21 to 28 give a list of the apparatus used in the fisheries. Give the number of each kind used in No. 29, and the value in No. 30. No. 31 is the total value of apparatus, and should agree with No. 13.

### OUTFIT AND EXPENSE.

	39. Amount.
32. Cost of the entire outfit for the year 1889 .....	
33. Cost of repairs (including materials) .....	
34. Paid for interest, insurance, and taxes .....	
35. Paid freight to market and storage .....	
36. Paid commissions on sale .....	
37. Paid other expenses for the year .....	
Total .....	
38. Total paid for wages during 1889 .....	

NOTE.—In lines 32 to 37, inclusive, give the total outfit and expense of vessels for the year 1889. Column 39 should give the total cost of fitting all your vessels during the year 1889, and should cover required to fit the vessels for sea.

## 618 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## CATCH IN 1889.

Name.	76. Quantity.	77. Value.	Name.	76. Quantity.	77. Value.
40. Sea bass.....			58. Abalone shells.....		
41. Rock cod.....			59. Shells for ornaments...		
42. Rockfish.....			60. Sea float.....		
43. Salmon.....			61. Beach rock.....		
44. Halibut.....			62. Sand and gravel.....		
45. Bluefish.....			63. Fish tongues.....		
46. Herring.....			64. Fish sounds.....		
47. Bonito.....			65. Fish sold for bait.....		
48. Barracuda.....			66. Fish sold for oil.....		
49. Clam.....			67. Livers sold for oil.....		
50. Mussel.....			68. Fish sold as fertilizer...		
51. Crab.....			69. Fish sold for isinglass..		
52. Crawfish.....			70. Fish sold for glue.....		
53. Shrimp and prawn.....			71. Fish roe or spawn.....		
54. Sea turtle.....			72. Fish oil brought in.....		
55. Terrapin.....			73.....		
56. Abalone meats.....			74.....		
57.....			75.....		

In reporting fish caught, return name in full and any local name.

NOTE.—The quantity in No. 76, and value in No. 77, of all fish caught and product obtained or sold during the year 1889 by all of your vessels should be shown in the table opposite the lines numbered 40 to 75. Every product of the water or shore, whatever name or kind, if of value, should be accounted for. Write such as are not mentioned in blank lines 73, 74, and 75. Under this title should be tabulated such product, etc., as is brought in from voyage, and not such as is manufactured or prepared on shore.

## FOOD-FISH PREPARATION, OILS, ETC.

Classification.	91. Basis.	92. Number or quantity.	93. Value.
78. Refrigerated fish (iced).....			
79. Pickled fish.....			
80. Smoke-cured fish.....			
81. Sun-dried fish.....			
82. Boneless and prepared fish.....			
83. Canned fish.....			
84. Whale oil.....			
85. Seal oil.....			
86..... oil.....			
87..... oil.....			
88. Skins of seal, sea lion, otter, etc.....			
89. Whale product (bone, ivory, etc.).....			
90.....			

"Basis" means "barrel," "gallon," "quintal," etc., as the product is sold. Add any other products, describe method, and give quantity and value.

NOTE.—Under this title give quantity and value of fish prepared by your concern as there mentioned. Lines 86 and 87 are intended for other oils obtained by you. Line 90 is intended for other preparations of fish, if any, put up by you. Please return any not mentioned. If any fish or product appears in more than one line under this title return the fact, in order to avoid duplication.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 619

## PERSONS EMPLOYED.

94. Where born.	95. Captains.	96. Fishermen.		97. Clerks and store- keepers.	98. Shore hands.	99. Factory hands.	100. Totals by national- ities.
		Resident.	Nonresi- dent.				
United States:							
White .....							
Colored.....							
Indians.....							
Canada and provinces .....							
Great Britain and Ireland...							
Portugal.....							
Norway and Sweden .....							
Pacific Islands .....							
China .....							
All other .....							
101. Total number in each class .....							
102. Average monthly earn- ings of each class .....							

103. Number of fishermen employed between 18 and 45 years of age.

NOTE.—Classify your employees by nationalities in Nos. 95 to 99, inclusive, adding such foreigners employed as are not mentioned. By “factory hands” is meant cannerymen, packers, etc. Fishermen should be classed in No. 96 as resident or non-resident of the county in which the business is carried on. Those foreigners who have been naturalized should be classed as citizens of the United States. No. 101 should show the total number of employees in each grade, and No. 102 the average monthly earnings of each class. Board furnished on shipboard should be added in making up averages. No. 103 requests the number of fishermen employed between 18 and 45 years of age. Clerks and storekeepers, shore hands, and factory hands must not be included.

104. If any colored persons have money invested in your business or vessels, give number and amount of investment.

## MARKETS, ETC.

105. Principal markets for your fish.

106. Cost per 100 pounds for transportation to market.

107. Waters in which fish were taken during the year.

## LOSSES, ACCIDENTS, ETC.

108. Name of vessel lost.

109. Value.

110. Where lost.

111. Number of deaths from accidents or disaster among your fishermen during the year 1889.

## NOTICE.

This schedule will be placed in the hands of every person engaged in the general fisheries of the Pacific, and all persons interested in this important industry should be aware that careful and accurate returns are needed in order that these fisheries may be properly represented in the coming census reports. It is hoped that this office will receive your cordial assistance, and that you will carefully fill in the answers to questions in the schedule.

The information requested should cover your entire operations for the year ending December 31, 1889, as conforming most nearly to the census year. As to values or other information requiring a fixed date, the same should be given as it existed on December 31, 1889. Fair market value should be returned in all cases where value is requested.

Any information relative to the fisheries of importance and value to the investigation or in explanation of answers given to questions may be written on the blank pages of the schedule. In referring to questions in the schedule the number of the inquiry should be used.

620 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

ALLIGATOR FISHERY.

To .....; Town (or City); County; State.

ALLIGATORS.

Month.	Number killed.	Number captured.	Month.	Number killed.	Number captured.
1889.			1890.		
August .....			January .....		
September .....			February .....		
October .....			March .....		
November .....			April .....		
December .....			May .....		
			[2 blank lines.]		
			Total number .....		

OUTFIT.

Articles.	Number.	Value.	Articles.	Number.	Value.
Guns .....			Provisions .....		
Ammunition .....			Other supplies .....		
Boats .....			[4 blank lines.]		
Tents .....			Total .....		
Implements .....					
Preserving materials .....					

PRODUCTION.

	Number or quantity.	Value.
Alligator oil .....	gallons..	
Alligator skeletons .....		
Alligator skins .....		
Alligator ivory .....		
Alligator flesh used or sold .....		
Alligators sold alive .....		
Alligator eggs .....		
Total .....		

If crocodiles or caymans were killed or captured, report the number and how they were disposed of.

Number of persons employed in hunting in your party.

Average number of months each man was employed during the above-named season.

Average earnings per month of each man engaged.

PLUMAGE AND OTHER BIRDS KILLED AND CAPTURED BY ALLIGATOR HUNTERS.

Name of bird.	For mounting.		Sold alive.		For plumage.		Other uses.	
	Num- ber.	Value.	Num- ber.	Value.	Num- ber.	Value.	Num- ber.	Value.
Blackbird .....								
Bittern or Indian hen .....								
Crane (white) .....								
Crane (sandhill) .....								
Duck .....								
Frigate .....								
Goose .....								
Gull .....								
Heron .....								
Ibbs .....								
Flamingo .....								
Osprey .....								
Spoonbill .....								
Stork .....								
Swan .....								
All other .....								
Total .....								

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 621

If any colored persons have capital invested in this business, give number and amount of investment.

## PERSONS EMPLOYED.

Where born.	White.	Colored.	All other.	Remarks.
United States.....				
Canada and provinces.....				
Great Britain.....				
[4 blank lines.]				
Total .....				

## GENERAL INSTRUCTIONS.

This schedule will be placed in the hands of every person engaged in the hunting of alligators, and all persons interested in this industry should be aware that the most careful and accurate returns are needed in order that it may be properly represented in the coming census reports. It is hoped that this office will receive your cordial assistance, and that you will carefully fill in the answers to the questions in this schedule.

In the column for "Alligators killed" report only alligators killed before being handled.

In the column for "Alligators captured" include alligators captured alive for exhibition or for any other purpose.

Under "Outfit" put all articles used as an outfit for alligator hunting.

By "earnings" we understand monthly wages, or, in case of sharemen, a division of profits.

Give any information regarding the alligator industry that may be thought of interest and value to the investigation, such as purposes for which the different alligator products are used, the frequency or absence of crocodiles in the past, etc.

## COD AND GROUND FISHERIES.

To .....; Town (or City); County; State.

## VESSELS (5 TONS AND OVER).

1. Name of vessel.	2. Rig.	3. Net tonnage.	4. Original cost.	5. Present value.	6. Weeks employed in fishing.	7. Employment balance of year.
(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

Every vessel in your fishery should be described in the above table. "Rig" means "schooner," "sloop," "steamer," etc.

## LOSSES AND DISASTERS IN 1889.

8. Name of vessel lost.	9. Value.	10. Where lost.
(a)	(a)	(a)

a Several blank lines are printed in schedule.

11. Number of deaths among your employees from marine disasters during the year 1889.

622 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

CAPITAL INVESTED.

Classification.	20. Value.	Classification.	20. Value.
12. Buildings, land, wharves, flake yards, etc .....		18. Other investments .....	
13. Machinery .....		19. Cash and credit capital, including long accounts, borrowed money, etc .....	
14. Stores and supplies .....		21. Total capital in business ....	
15. Tools and implements .....			
16. Apparatus .....			
17. Vessels and outfit .....			

NOTE.—In lines 12 to 19 are enumerated the several classes of investment in cod and ground fisheries. Return carefully in column 20 the value of each class. No. 21 is the total invested capital on December 31, 1889.

APPARATUS USED.

Name.	33. Number.	34. Value.	Name.	33. Number.	34. Value.
22. Dories .....			29. ....		
23. Hand lines rigged .....			30. ....		
24. Trawls .....			31. ....		
25. Gill nets .....			32. ....		
26. Other nets .....			35. Total value of apparatus .....		
27. ....					
28. ....					

NOTE.—Lines 22 to 32 should cover the several kinds of apparatus used in cod and ground fisheries. Add in lines 27 to 32 such apparatus not mentioned in the list. Return the number of each kind used in No. 33, and the value in No. 34. No. 35 is the total value of apparatus.

OUTFIT AND EXPENSE.

Classification.	43. Quantity.	44. Value.
36. Ice (tons) .....		
37. Salt (hogsheads) .....		
38. Bait purchased or caught in foreign waters .....		
39. Bait purchased at home or caught in American waters .....		
40. All other outfitting expenses, including fuel, provisions, etc., for 1889 .....		
41. Paid for fishing privileges in foreign ports in 1889 .....		
42. Paid for wages or shares in 1889 .....		

45. Principal markets for your fish in 1889.

46. Principal waters in which your fish were caught in 1889.

NOTE.—Under this title, lines 36 to 42, is requested the cost of outfit and expense of cod and ground fisheries for the year 1889. The number, so far as applicable, should be shown in No. 43, and the value in No. 44. No. 45 calls for the principal markets for your fish for 1889; No. 46 the principal waters in which cod were caught in 1889.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 628

"CATCH" IN 1889.

	61. How sold (basis). (a)	62. Sold fresh.		63. Pickled and salted.		64. Where sold.
		Quantity.	Value.	Quantity.	Value.	
47. Codfish, Georges.....						
48. Codfish, shore.....						
49. Codfish, bank.....						
50. Cusk.....						
51. Haddock.....						
52. Hake.....						
53. Halibut.....						
54. Pollock.....						
55. Fish livers.....						
56. Fish roe or spawn.....						
57. Tongues.....						
58. Sounds.....						
59. Blubber and oil.....						
60. ....						
65. Totals.....						

a "How sold" means "barrel," "quintal," "pounds," or "count," as the fish, etc., are usually sold.

NOTE.—In the several lines under this title is mentioned the fish and product brought in from voyages.

Carefully return the quantity and value in the proper columns.

Every product, of whatever name, brought in, if of value, should be returned.

## PERSONS EMPLOYED.

66. Where born.	67. Captains.	68. Fishermen.		69. Shore laborers.	70. Factory hands.	71. Total by nationali- ties.
		Resi- dent.	Non- resident.			
United States:						
White.....						
Colored.....						
Indians.....						
Canada and provinces.....						
Great Britain and Ireland.....						
Portugal and Azores islands.....						
Sweden and Norway.....						
Russia.....						
Spain.....						
France.....						
[1 blank line.]						
Unknown.....						
72. Total employed in each class...						
73. Average monthly earnings of individuals in each class while engaged in this fishery.						

74. Number of fishermen employed in 1889, as above, between 18 and 45 years of age.

75. If any colored persons have money invested in your business or vessels, give number and amount of investment.

NOTE.—Classify your employees in columns 67 to 70 by nationalities. Add in column 66, in blank line, any foreign class not there mentioned employed by you in this fishery. No. 71 is the total by nationalities. No. 72 is the total number employed in each class. No. 73 is the average monthly earnings of each class. No. 74 should show the number of fishermen employed in 1889 between the ages of 18 and 45 years. Shore laborers and factory hands *should not be included*. No. 75 asks the number of colored persons, if any, having capital in your vessels or fishery, and the amount of their investment.

## GENERAL INSTRUCTIONS.

This schedule will be placed in the hands of every person engaged in cod and ground fisheries during the year 1889, and all persons interested in this important industry should be aware that careful and accurate returns are needed in order t

## 624 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

these fisheries may be properly represented in the coming census reports. It is hoped that this office will receive your cordial assistance, and that you will carefully fill in the answers to the questions in the schedule.

The information requested should cover the entire operations for the year ending December 31, 1889, as conforming most nearly to the "census year" and being the "fishing year." As to values or other information requiring a fixed date, the same should be given as existing December 31, 1889. Fair market values should be given in all cases where values are requested.

Any information relative to the fisheries or in explanation of answers given to questions may be written on the blank page of the schedule.

In referring to questions in the schedule the number of the question should be used. This is very important.

### LOBSTER FISHERY.

To .....; Town (or City); County; State.

#### BOATMAN AND ASSISTANTS.

1. Names.	2. Age.	3. Where born.	4. White.	5. Colored.	6. Indian.	7. Natural- ized.
(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

Give name, age, and place of birth of yourself and assistants, and make cross-mark (x) in proper column, showing whether white, colored, Indian, or naturalized.

#### LOBSTERS CAUGHT IN 1889.

Disposition of catch.	13. Number.	14. Quantity.	15. Value.
8. Sold to cannery and packers.....			
9. Sold to "smacks" alive.....			
10. Shipped to market alive.....			
11. Shipped to market cooked.....			
12. Local sales.....			
16. Total.....			

#### PROPERTY IN USE.

Classification,	23. Number.	24. Value.
17. Sailboats.....		
18. Other boats.....		
19. Live boxes and cars.....		
20. Pots and gear.....		
21. Nets and gear.....		
22. Wharves, floats, land, buildings, cash and borrowed capital.....		
25. Total value of investments.....		

#### OUTFIT, EXPENSES, ETC.

- 26. Pots, cars, and gear lost.
- 27. Value of bait caught.
- 28. Value of bait purchased.
- 29. Other expense.

#### MISCELLANEOUS.

- 30. Number of weeks engaged in the lobster fishery in 1889.
- 31. What other fishery were you engaged in during 1889?
- 32. What was your employment in 1889 when not fishing?
- 33. State whether your assistants are on "share" or "lay" or wages.
- 34. Average earnings (owner).

35. Average weekly earnings (assistant).  
 36. Name markets to which you shipped lobsters in 1889.  
 37. Where do you get bait?  
 38. What do you use for bait?  
 39. If colored men have money invested in your business give number; amount.  
 40. ....

## INSTRUCTIONS AND EXPLANATIONS.

*Lobsters caught in 1889.*—Your entire "catch" of lobsters during the year should be returned under this title. The "catch" should be distributed as you disposed of the same, viz: To canners and packers, No. 8; to smacks, No. 9; shipped to market alive, No. 10; shipped to market cooked, No. 11; local sales, No. 12. Give the number and the quantity of lobsters in columns 13 and 14, and the value in column 15. No. 16 is the total quantity and value.

*Property in use.*—Under this title all apparatus and fishing gear and other investments in lobster fishing should be returned in lines 17 to 22, inclusive, giving the number of articles in No. 23 and their value in No. 24. No. 25 is the total.

*Outfit, expense, etc.*—Give the value of the several items mentioned in lines 26, 27, 28, and 29.

*Miscellaneous.*—Questions 30, 31, 32, 33, 34, 35, 36, 37, and 38 explain themselves. Question 39 asks the number of colored men, if any, who have money invested in your business, and the amount invested. No. 40 is intended for special inquiries, which please note.

*NOTICE.*—Every lobster fisherman should fill out one of these schedules. If assistance is required in making your answers to these questions, apply to customs officers, postmasters, your fitters, or parties to whom you sell your lobsters, any one of whom will, without doubt, assist you. Where no records or books of accounts are kept you are expected to return estimates of quantities, etc., exercising your best judgment.

## MACKEREL FISHERY.

To.....; Town (or City); County; State.

## VESSELS EMPLOYED (5 TONS OR OVER).

1. Letter.	2. Name of vessel.	3. Rig. (a)	4. Home port.	5. Net tonnage	6. Original cost of vessel.	7. Present value.	8. Horse- power of engine if steamer.	9. Number of months in mack- erel fishing.	10. Employ- ment balance of year.
a b c d e f g h i j									

a "Rig" means "schooner," "steamer," "sloop," etc.

## CAPITAL INVESTED.

Classification.	21. Value.	Classification.	21. Value.
11. Apparatus.....		17. Vessels and boats.....	
12. Buildings and fixtures.....		18. Wharves and floats.....	
13. Land.....		19. Fish on hand.....	
14. Machinery.....		20. Cash and borrowed capital.....	
15. Store supplies.....			
16. Tools and implements.....		22. Total capital invested.....	

*NOTE.*—In lines 11 to 20, inclusive, are printed the several classes of investment in the mackerel fishery. Return carefully in column 21 the value of each class used in your mackerel fishery. No. 22 is the total capital invested.

## 626 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## APPARATUS USED.

Name.	34. Number.	35. Value.	Name.	34. Number.	35. Value.
23. Sailboats.....			30. Pounds.....		
24. Seine boats.....			31. Weirs.....		
25. Other boats.....			32. ....		
26. Fishing lines.....			33. ....		
27. Nets.....			36. Total value of ap- paratus.....		
28. Purse seines.....					
29. Pockets.....					

NOTE.—Nos. 23 to 31 cover several kinds of apparatus used in the mackerel fishery. Add in lines 32 and 33 such as are not there mentioned. Return the number, in column 34, of each kind used and the value in column 35. No. 36 is the total value of apparatus.

## OUTFIT AND EXPENSE.

Classification.	47. Number or quantity.	48. Value.
37. Barrels and boxes.....		
38. Salt (hogsheads).....		
39. Ice (tons).....		
40. Bait purchased or caught in foreign waters.....		
41. Bait purchased at home or caught in American waters.....		
42. Other bait.....		
43. All other outfitting expense, provisions, fuel, etc., in mackerel fishery.....		
44. Paid for fishing privileges in foreign waters and ports in 1889.....		
<i>For Cannners, Packers, etc.</i>		
45. Paid for rents, power, heat, insurance, taxes, interest, commissions, etc.....		
46. All other factory or packing expense (not including wages).....		

49. Principal markets for your mackerel in 1889.

50. Principal waters in which vessel fished for mackerel in 1889.

NOTE.—In lines 37 to 44 you are requested to state the cost of outfit and the expense of the mackerel fishery for the year 1889. In lines 45 and 46 answers are to be returned only by those who caught and also packed or canned fish. The number, so far as applicable, should be shown in column 47, and the value in column 48. No. 49 asks for the principal markets for your mackerel; No. 50 the waters in which they were caught in 1889.

## LOSSES AND DISASTERS IN 1889.

51. Name of vessel lost.	52. Value.	53. Number of deaths among your em- ployees from accident or dis- aster in 1889.
(a)	(a)	(a)

a Several blank lines are printed in schedule.

NOTE.—Nos. 51, 52, and 53 call for the name and value of your vessel's lost in the mackerel fishery during the year 1889 and the number of deaths from accident or disaster among the employees in your service during the same time.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 627

## CATCH IN 1889.

Grade.	66. Basis. (a)	67. Quantity.	68. Value.
54. Messed mackerel .....			
55. No. 1 mackerel .....			
56. No. 2 mackerel .....			
57. No. 3 mackerel .....			
58. Spanish mackerel .....			
59. Thimble-eye mackerel .....			
60. Sea-packed mackerel .....			
61. ....			
62. ....			
63. ....			
64. ....			
65. ....			

a "Basis" means "barrel" or other package, as the fish are sold.

NOTE.—Under 54 to 60 is printed the several grades of mackerel caught. Add in blank lines any other grade taken during the year 1889. Return in columns 67 to 68 the quantity and value of each grade taken.

## PERSONS EMPLOYED.

69. Where born.	70. Fishermen.		71. Shore help.	72. Factory hands.	73. Total by nationalities.
	Resident.	Nonresident.			
United States:					
White .....					
Colored .....					
Indian .....					
Canada and provinces .....					
Great Britain and Ireland .....					
Sweden and Norway .....					
Germany .....					
France .....					
Portugal and Azores islands .....					
[2 blank lines.]					
Unknown .....					
74. Total employed in each grade .....					
75. Average monthly earnings of each grade while fishing for mackerel .....					

76. Total amount paid in wages or in shares to fishermen.

77. Total number of persons employed in mackerel fishery.

78. Number of fishermen employed in 1889 between 18 and 45 years of age.

79. If any colored persons had capital invested in your mackerel fishery in 1889, give number and amount of investment.

NOTE.—Classify your employees in columns 69 to 72 by nationalities. Add in column 69, in the blank lines, any foreign class not there mentioned employed by you in the mackerel fishery. No. 73 is the total by nationalities. No. 74 is the total number employed in each grade. No. 75 is the average monthly earnings of each grade while fishing for mackerel. Board furnished on shipboard should be included in making up averages. No. 76 is the total amount paid in wages or in shares to fishermen. No. 77 is the total number of persons employed in the mackerel fishery. No. 78 is the number of mackerel fishermen employed in 1889 between 18 and 45 years of age. Factory hands and shore help *should not be included*. No. 79 asks for the number of colored persons who have capital invested in your vessels or business, and amount of investment.

## NOTICE.

This schedule will be placed in the hands of every person engaged in the mackerel fishery during the year 1889. All interested in this important industry should be aware that careful and accurate returns will be needed in order that the fishery may be properly represented in the coming census reports. It is hoped that this office will receive your cordial assistance, and that you will carefully fill in answers to the questions in the schedule.

# 628 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

The information requested should cover your entire operations for the year ending December 31, 1889, as conforming most nearly to the "census year" and being the "fishing year." As to values or other information requiring a fixed date, the same should be given as it existed December 31, 1889. Fair market value should be returned in every case where values are requested.

Any information relative to the fisheries that may be thought of importance and value to the investigation or in explanation of answers given to questions may be written on the blank pages of the schedule.

In referring to questions in the schedule the number of the inquiry should be used.

## MENHADEN FISHERY.

To .....; Town (or City); County; State.

### VESSELS.

1. Letter.	2. Name of vessel.	3. Rig.	4. Net ton- nage.	5. Home port.	6. Orig- inal cost of vessel.	7. Pres- ent value of vessel.	8. Horse- power of engine, if steam vessel.	9. Num- ber of owners.	10. Number of months employed in 1889.	11. Em- ploy- ment balance of the year.
a b c d e f g h i j										

"Rig" means "schooner," "sloop," "steamer," etc.

### CAPITAL INVESTED.

Classification.	22. Value.	Classification.	22. Value.
12. In stores and supplies on hand....		19. ....	
13. In land.....		20. Other items not mentioned.....	
14. In buildings.....		21. Cash and credit capital, includ- ing borrowed money, ledger accounts, etc.....	
15. In machinery.....			
16. In tools and implements.....		23. Total capital invested.....	
17. In vessels and steamers.....			
18. In wharves.....			

NOTE.—Nos. 12 to 21 cover the several classes of investment in the fishery. Give the value under No. 22 of each class in your business, and in No. 23 the total of the items.

### APPARATUS, ETC.

Name.	36. Number.	37. Value.	Name.	36. Number.	37. Value.
24. Carry-away boats.....			32. Other nets.....		
25. Drive boats.....			33. Horses and carts.....		
26. Strike boats.....			34. Other apparatus.....		
27. Seine boats.....			35. ....		
28. Other boats.....					
29. Purse seines.....			38. Total value of apparatus.....		
30. Other seines.....					
31. Dip nets.....					

NOTE.—Nos. 24 to 35 is a list of the apparatus used in the fishery. Give the number of each kind used in your fishery in No. 36, the value of each kind in No. 37, and the total value of apparatus in No. 38.

## OUTFIT AND EXPENSE.

Classification.	51. Quantity, etc.	52. Amount chargeable to vessels.	53. Amount chargeable to factory.
39. Fuel consumed on vessels.....			×
40. Fuel consumed on shore .....		×	
41. Salt used.....			
42. Paid for rents in 1889 (factory) .....	×	×	
43. Paid for power in 1889 (factory).....	×	×	
44. Paid for insurance in 1889 (factory).....	×	×	
45. Paid for repairs of buildings and machinery.....	×	×	
46. Paid for commissions on sales of products.....		×	
47. Paid for interest.....			
48. Paid for taxes (vessels and shore property).....	×		
49. All other items of outfit and expense chargeable to vessels .....	×		×
50. All other items of expense chargeable to factory.....	×	×	
54. Total expense and outfit for year (vessels).....	×		×
55. Total of all items charged to factory.....	×	×	
56. Average annual allowance since 1880 for deprecia- tion of buildings and machinery.....			

NOTE.—The outfit and expense for the year 1889 are called for under this title. Place the outfit and other expense in the proper column, whether chargeable to vessel or to factory expense. Cover every item fully, and in No. 54 give the total outfit and expense of vessels for the year, and in No. 55 the total chargeable to factory. In No. 56 give the annual allowance since 1880 for depreciation of buildings and machinery.

## FISH CAUGHT.

Kind of fish taken in 1889.	66. Number or quantity.	67. Value.	Kind of fish taken in 1889.	66. Number or quantity.	67. Value.
57. Menhaden.....			63. ....		
58. Mackerel.....			64. ....		
59. ....			65. ....		
60. ....			68. Total fish caught..		
61. ....					
62. ....					

NOTE.—Place under this title all fish taken during the year 1889, giving quantity in No. 66 and value in No. 67 of each kind taken. No. 68 is the total value of fish caught, and should be the total of the items in No. 67.

## PRODUCTION.

Name of product.	78. Quantity.	79. Value.	Name of product.	78. Quantity.	79. Value.
69. Menhaden oil.....			75. ....		
70. Scrap or chum.....			76. ....		
71. ....			77. ....		
72. ....			80. Total production..		
73. ....					
74. ....					

NOTE.—Every production of your works for the year should appear here, with the quantity and value. No. 80 is the total.

## 630 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## BAIT.

81. Year. (a)	82. Kind of fish or bait sold.	83. Quantity.	84. Value.	85. Where sold.	86. Value of bait given away each year.
1880.....					
1881.....					
1882.....					
1883.....					
1884.....					
1885.....					
1886.....					
1887.....					
1888.....					
1889.....					

a A blank line for each year from 1880 to 1889, inclusive, is printed in schedule.

NOTE.—The quantity and value of bait disposed of in the years 1880 to 1889 is asked for. If no account is kept, estimates should be given. In some sections of the country the shore fishermen and others allege that the wholesale taking of mehaden and other fish by seines is destroying the fresh-bait privileges of the shore fisheries. Full returns in the table may throw some light upon the question.

## PERSONS EMPLOYED.

87. Where born.	88. Clerks and office help.	89. Captains.	90. Mates.	91. Fishermen.		92. En- gineers.	93. Factory hands.	94. Total.
				Resident.	Non- resident.			
United States:								
White.....								
Colored.....								
Indians.....								
Canada and prov- inces.....								
Great Britain.....								
Portugal.....								
Sweden and Norway.....								
Germany.....								
France.....								
Italy.....								
(1 blank line.)								
95. Totals in each class.....								
96. Average month- ly earnings of each class, sea- son of 1889.....								

97. How paid (share or wages).

98. Total amount paid to all employees in your fishery in 1889.

99. Average weekly wages paid factory hands in 1889.

100. Number of hours in the ordinary day's labor in 1889.

101. Persons employed on vessels in 1889 between 18 and 45 years of age—number.

102. If any colored men have money invested in your business or vessels, give the number and amount invested.

NOTE.—Class your employees by nationalities in Nos. 88 to 93, inclusive, adding such foreigners employed as are not mentioned. Fishermen should be classed in No. 91 as resident or nonresident of the county in which the business is carried on. Those foreigners who have been naturalized should be classed as citizens of the United States. No. 94 is the total of each nationality. No. 95 is the total of each class employed. No. 96 should show the average monthly earnings of each class for the season of 1889. No. 97 explains whether employees are paid by share, wages, or salary. No. 98 is the total amount paid to all employees. No. 99 calls for the average weekly wages paid factory hands in the year 1889. No. 100 the number of hours in an ordinary day's labor in 1889. No. 101 should give the number of persons employed on vessels in 1889 between the ages of 18 and 45 years. Clerks and office help, No. 88,

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 631

and factory hands, No. 93, *must not be included*. No. 102 requests the number of colored men, if any, who have capital invested in your business or vessels, and the amount of such investment.

103. Description of works, etc.:

Where located; power used; number of engines; number of boilers; horsepower.

Total producing capacity of factory on December 31, 1889:

Tons scrap; gallons of oil.

When did your establishment commence operations?

Number months operated in 1889; Number months idle in 1889.

## LOSSES AND DISASTERS.

104. Name of vessel lost.	105. Value.	106. Number of deaths from accidents or disasters among your employees during year 1889.
(a)	(a)	(a)

a Several blank lines are printed in schedule.

107. In your return of weights by tons have you used net tons of 2,000 pounds or gross tons of 2,240 pounds?

NOTE.—Nos. 104 and 105 call for the name and value of vessels lost during the year 1889, and No. 106 the number of deaths from accidents or disasters in that period. No. 107 relates to whether gross or net tons were used by you in return of weight. Report any changes of fishing grounds and other information pertaining to the inquiry upon the blank pages of the schedule.

## GENERAL INSTRUCTIONS.

This schedule will be placed in the hands of every person engaged in the menhaden fishery, and all persons interested in this important industry should be aware that the most careful and accurate returns are needed in order that these fisheries may be properly represented in the coming census reports. It is hoped that the census office will receive your cordial assistance, and that you will carefully fill in the answers to the questions in the schedule.

The information requested should cover your entire operations for the year ending December 31, 1889, as conforming most nearly to the "census year" and being the "fishing year." As to values or other information requiring a fixed date, the same should be given as it existed December 31, 1889.

Any information relative to the fisheries of importance and value to the investigation or in explanation of answers given to questions may be written on the blank pages of the schedule.

In referring to questions in the schedule the number of the inquiry should be used.

If you operate in more than one city or town, please return separate schedules for each place.

## SEA HERRING FISHERIES.

To ———; Town (or City); County; State.

### VESSELS (5 TONS AND OVER).

1. Name of vessel.	2. Rig.	3. Net tonnage.	4. Original cost of vessel.	5. Present value.	6. Home port.
(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

Every vessel in your employ engaged in the herring fishery in the year 1889 should be described above.

"Rig" means "schooner," "steamer," "sloop," etc. If steamer is employed, add to the description the horsepower of engine.

## 632 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## CAPITAL INVESTED.

Classification.	14. Value.	Classification.	14. Value.
7. Vessel and outfit .....		12. Other investments .....	
8. Land .....		13. Cash and credit capital, borrowed money, long accounts, etc .....	
9. Buildings and fixtures .....		15. Total capital invested .....	
10. Apparatus .....			
11. Tools and implements .....			

## APPARATUS.

Description.	24. Number.	25. Value.	Description.	24. Number.	25. Value.
16. Boats under 5 tons .....			22. Pounds or weirs .....		
17. Seine boats .....			23. Other apparatus .....		
18. Dories and other boats .....			26. Total value of apparatus .....		
19. Nets .....					
20. Traps .....					
21. Seines .....					

NOTE.—Return under “Capital invested” all investments in the herring fisheries, and under “Apparatus” a list of every article of the kind mentioned, giving number and value.

27. Name the principal markets for your catch of herring in 1889.

28. Name the principal waters in which you caught herring in 1889.

29. Number of months engaged in the herring fishery.

## CATCH IN 1889.

Classification.	38. Sold fresh.		39. Salted and pickled.	
	Quantity.	Value.	Quantity.	Value.
30. Herring .....				
31. Herring .....				
32. Brit .....				
33. Sperling .....				
34. Sardines .....				
35. ....				
36. ....				
37. ....				
40. Total .....				

NOTE.—Under this title give the quantity and value of fish sold fresh in No. 38, and the quantity and value of fish salted and pickled during the year 1889 in No. 39. Also list all other fish caught while herring fishing. In reporting names of the fish caught carefully return local names, so that no error may be made in classification.

## DISPOSITION OF CATCH.

Commercial uses.	50. Quantity.	51. Value.
41. Fish sold for manufacture of oil .....		
42. Fish sold or used for bait .....		
43. Fish sold for fertilizing purposes .....		
44. Fish sold or used for canning or packing .....		
45. Fish sold to be smoke-cured .....		
46. Fish oil manufactured by you .....		
47. Fish canned or packed by you .....		
48. Fish smoke-cured by you .....		
49. ....		

NOTE.—Give in lines 41 to 48 the several commercial uses of fish and product. Fill in under No. 50 the quantity and in No. 51 the value of fish or product sold or manufactured for the purposes therein mentioned or for any purpose not mentioned.

## OUTFIT AND EXPENSE.

52. Cost of barrels, boxes, etc.  
 53. Cost of ice, tons.  
 54. Cost of salt, hogsheads.  
 55. All other outfitting expense, provisions, fuel, etc. (not including wages).

For canners, smokers, and packers:

56. Paid for rent, power, heat, insurance, taxes, interest, and commissions.  
 57. All other factory expense (not including wages).

NOTE.—Give in lines 52 to 55 the total outfit and expense of your vessels in the herring fishery during the year 1889. In lines 56 and 57 answers are to be returned not only by those who caught but also by those who canned, smoked, and packed fish. Outfit includes all expense of fitting out vessel for the business and intended voyage.

## PERSONS EMPLOYED.

58. Where born.	59. Captains.	60. Fishermen.		61. Shore hands.	62. Factory hands.	63. Total by national- ities.
		Resident.	Non- resident.			
United States:						
White.....						
Colored.....						
Indians.....						
Canada and provinces.....						
Great Britain and Ireland.....						
Sweden and Norway.....						
Portugal and Azores.....						
France.....						
Spain.....						
Germany.....						
[1 blank line.]						
Unknown.....						
64. Total in each class.....						
65. Average monthly earnings of each grade.....						

66. Total amount paid in wages or shares to fishermen.  
 67. Number of fishermen between the ages of 18 and 45 years in your employ in 1889 engaged in the herring fishery.  
 68. If any colored persons had capital invested in your business or vessels in 1889, give number and amount of investment.

NOTE.—Classify your employees by nationalities in Nos. 59 to 62, inclusive, adding such foreigners employed as are not mentioned. Fishermen should be classed in No. 60 as resident or nonresident of the county in which the business is carried on. Those foreigners who have been naturalized should be classed as citizens of the United States. "Factory hands" means packers, canners, etc. No. 63 is the total by nationalities. No. 64 is the total employed in each grade or class. No. 65 is the average monthly earnings of individuals employed in each grade in 1889. Board furnished on shipboard should be included in making up averages. No. 66 is the total amount paid in wages or shares to fishermen. No. 67 should give the number of fishermen between the ages of 18 and 45 years engaged in the herring fishery in the year 1889. Shore hands and factory hands *should not be included*. No. 68 calls for the number of colored persons having money invested in your business, and the amount of such investment.

## LOSSES AND DISASTERS IN 1889.

69. Name of vessel lost.	70. Value.	71. Number of deaths among your em- ployees from accident or disaster in the year 1889.
(a)	(a)	(a)

a Several blank lines are printed in schedule.

72. What other fishery were you engaged in during the year 1889?

73. ....

NOTE.—Nos. 69, 70, and 71 call for the name and value of any vessel lost in the herring fishery in 1889, and the number of deaths from accident or disaster among your

## 634 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

employees in the same period. Give under No. 72 any other fishery you were employed in during the year 1889. No. 73 is for special questions, which carefully note.

## GENERAL INSTRUCTIONS.

This schedule will be placed in the hands of every person engaged in the herring fishery during the year 1889, and all persons interested in this important industry should be aware that careful and accurate returns will be needed in order that this fishery may be properly represented in the coming census reports. It is hoped that this office will receive your cordial assistance, and that you will carefully fill in the answers to the questions in the schedule.

The information requested should cover your entire operations for the year ending December 31, 1889, as conforming most nearly to the "census year" and being the "fishing year." As to values or other information requiring a fixed date, the same should be given as it existed December 31, 1889. Fair market value should be given in all cases where values are requested.

Any information relative to the fisheries of importance and value to the investigation or in explanation of answers given to questions may be written on the blank page of the schedule.

In referring to questions in the schedule the number of the inquiry should be used.

## SHAD AND ALEWIFE FISHERIES.

To .....; County; Post-office; State.

## SHAD.

Month.	Quantity.		3. Value.
	1. Sold fresh.	2. Salted.	
1889.			
August .....			
September .....			
October .....			
November .....			
December .....			
1890.			
January .....			
February .....			
March .....			
April .....			
May .....			
June .....			
July .....			
7. Total .....			

## ALEWIVES. (a)

Month.	Quantity.		6. Value.
	4. Sold fresh.	5. Salted.	
1889.			
August .....			
September .....			
October .....			
November .....			
December .....			
1890.			
January .....			
February .....			
March .....			
April .....			
May .....			
June .....			
July .....			
7. Total .....			

<sup>a</sup> Alewives are caught under many names in different sections of the country, and frequently fish are improperly called by the name of alewife. In making your return please report local names and give the quantity of fish taken, in order that they may be properly classified.

## OTHER "CATCH." (a)

Name of fish.	8. Quantity.	9. Value.	Name of fish.	8. Quantity.	9. Value.
10. Herring.....			22. Salmon.....		
11. Sturgeon.....			23. Tomcod.....		
12. Rockfish.....			24. Bonito.....		
13. Perch.....			25. Porgy.....		
14. Jacks.....			26. Squeteague.....		
15. Catfish.....			27.....		
16. Mullet.....			28.....		
17. Carp.....			29.....		
18. Eels.....			30.....		
19. Menhaden.....			31.....		
20. Rock bass.....					
21. Striped bass.....			32. Total value.....		

a The names of those fish taken in the shad season, and frequently in the same "haul" or "catch," are printed in the table. Many have local names by which they are known. Please give these names in reporting fish caught, with quantity and value of each.

NOTE.—In columns 1 to 6 give the quantity and value of the fish taken in each month for the year. Quantity may be expressed by count or by weight, count being preferable. In line numbered 7 must appear the totals of quantities and values of both kinds of fish taken. Under Nos. 8 to 31 the quantity and value of each kind of fish, other than shad or alewives, taken by your fishery for the year should appear. Add such kinds of fish as are not mentioned, and give quantity and value in the proper columns. Estimate carefully when no books or records are kept. No. 32 is the total value of all under this title.

## APPARATUS USED IN FISHERY—CAPITAL INVESTED.

Name.	44. Number.	45. Value.	Name.	44. Number.	45. Value.
33. Sail boats.....			40. Weirs.....		
34. Other boats.....			41. Horses.....		
35. Set nets.....			42. Carts.....		
36. Drift nets.....			43. Reels.....		
37. Dip nets.....					
38. Fyke nets.....			46. Total value of apparatus.....		
39. Pounds.....					

NOTE.—Nos. 33 to 43 is a list of apparatus used in shad fishery in different sections of the country. Return all boats under 5 tons. Fill in carefully under Nos. 44 and 45 the number and value of all kinds of boats, etc., as are used in your fishery. No. 46 is the total of items under No. 45.

Classification.	57. Value.	Classification.	57. Value.
47. Stores, supplies, etc., on hand.....		54. Machinery, tools, etc.....	
48. Apparatus.....		55. Fish and smoke houses.....	
49. Vessels and outfit.....		56. Cash in hand, long accounts, and other aids to capital.....	
50. Land and building.....			
51. Ice-houses and ice.....		58. Total capital invested.....	
52. Salt-houses and salt.....			
53. Platforms.....			

NOTE.—No. 57 must include the value of each class of investments in the business. No. 58 is the total of items under 57, and should be the total capital invested in your business.

## MARKETS, ETC.

59. Principal markets for your fish.
60. Cost per 100 pounds for freight to market.
61. Where were your fish caught?
62. What other fishing were you engaged in during the year?

NOTE.—Questions numbered 59, 60, 61, and 62 explain themselves, and should be carefully answered.

## 636 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## OUTFIT AND EXPENSE.

	71. Number or quantity.	72. Value.
63. Barrels, boxes, and tubs used.....		
64. Ice consumed.....tons.....		
65. Salt used.....hhds.....		
66. Rental paid for privilege.....		
67. Repairs and additions to gear.....		
68. Putting down and taking up.....		
69. Freight to market.....		
70. Provisions and other expenses.....		
73. Total outfit and expense.....		

NOTE.—The object of this inquiry is to ascertain the cost of outfit and the expenses of the fishery for the season. Give the number and quantity in No. 71, so far as applicable, and the value in No. 72 of the several items or classes of expense in your fishery for the whole season. No. 73 is the total of all items under 72.

## DISPOSITION OF CATCH AND PRODUCT.

	81. Quantity.	82. Value.
74. Fish sold for manufacture of oil.....		
75. Fish sold for bait.....		
76. Fish sold or used for manure.....		
77. Fish or refuse sold for making glue.....		
78. Fish or product sold for making isinglass.....		
79. Fish smoke-cured and sold.....		
80. Fish oil made by you.....		

NOTE.—Nos. 74 to 79 cover several commercial uses of fish and products. Fill in under No. 81 the quantity and under No. 82 the value of the fish or product sold during the year for any of the purposes therein mentioned, and any fish or product sold for any purpose not mentioned, and give quantity and value of each. No. 80: Give in this line the quantity and value of fish oil made by you, if any, and give also the name or kind of oil.

## VESSELS AND BOATS (5 TONS AND OVER).

83. Name of vessel.	84. Rig.	85. Net ton- nage.	86. When built.	87. Where built.	88. Original cost.	89. Present value.	90. Number of weeks employed in fish- ing.	91. Employ- ment of vessel balance of the year.
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

NOTE.—Vessels of 5 tons and over employed in your fishery should be fully described under Nos. 83 to 91. This office is aware that few vessels of this class are used in this fishery, but such as are employed should not be omitted from your report. Boats under 5 tons should be placed under "apparatus." "Rig" means "schooner," "sloop," etc.

## PERSONS EMPLOYED.

92. Where born.	Fishermen.		Shore help.			96. Totals.
	93. Resident.	94. Nonresi- dent.	95. Coopers and boxers.	96. Laborers.	97. Boys.	
United States (white) .....						
United States (colored) .....						
United States (Indians) .....						
Canada and provinces .....						
Europe .....						
[2 blank lines.]						
99. Number of each class em- ployed .....						
100. Average monthly earnings of each class .....		.				

101. Total amount paid for labor for season.  
 102. Number of persons interested as partners.  
 103. Number of deaths resulting from accident or disaster among your fishermen for the season.  
 104. If any colored men have money invested in your fishery or vessels, give the number and amount invested.  
 105. Average weekly wages paid fishermen.  
 106. Average weekly wages paid shore help.  
 107. Average weekly wages of coopers, etc.  
 108. If the fish reported were taken under legislative or municipal grant or license of waters or as to methods of taking, so state.  
 109. If fishing privilege is owned by and rental is paid to town, county, or state, so report, with application of rental, if known.

NOTE.—The nationality and a full classification of your employees is called for under this title, Nos. 92 to 97. Foreign-born persons who have been naturalized should be classed as citizens of the United States. As the tables and bulletins made up in this office are arranged by counties and states, the fishermen should be classed as resident or nonresident of the county in which your fishery is carried on. Add any nationality employed not mentioned. Column 98 is the total in each nationality and color. No. 99 is the total number of employees in each class, resident and nonresident fishermen, coopers and boxers, laborers, and boys. No. 100, giving the average monthly earnings of each class of employees, is important. No. 101 is the total amount paid all employees for the season. No. 102 requires the number of persons interested as partners or owners of the privilege and plant and in the season's catch. No. 103 asks for the number of deaths from accidents or disasters among your fishermen for the season. No. 104 should cover the number of colored persons, if any, interested in your fishery, and capital invested by them. Nos. 105, 106, and 107 request the average weekly wages or earnings of fishermen, shore help, etc., employed by you. No. 108: Report under this number whether the fishery is free, or subject to license or grant from state or other public authority. No. 109: If rental is paid for fishery, the fact should appear here, and the disposition of the money, if received by state or municipality.

## NOTICE.

This schedule will be placed in the hands of every person engaged in shad and alewife fisheries. While the schedule pertains especially to these fisheries, yet the attention of fishermen is called to the fact that many other fish valuable for food, bait, scrap, fertilizers, and oil are taken at the same time, for all of which full returns should also be made.

Carefully examine and accurately fill this schedule.

Where no records or accounts are kept, you are requested to return estimates of quantities and values, exercising your best judgment. Fair market value should be returned in all cases.

## SPECIAL OYSTER SCHEDULE.

To .....; County; Post-office; State.

## 1. All vessels and other craft employed for the season 1889 and 1890:

Classification.	Number employed.	Original cost.	Value Jan. 1, 1890.	Value of outfit.
Steamers .....				
Schooners .....				
Pungies .....				
Sloops .....				
Bug-eyes .....				
Brogans .....				
Luggers .....				
Canoes .....				
Sharpies .....				
Dories .....				
Bateaux .....				
Scows .....				

NOTE.—Outfit includes all implements and apparatus, extra sails and rigging, and provisions for the season.

## 2. Product of the season 1889 and 1890:

Classification.	Number of bushels taken.	Total value when sold.	Where sold. (a)
How produced:			
By dredging .....			
By scraping .....			
By tonging .....			
By other methods .....			

a If sold in city or town market, give the name; if sold on grounds where taken, so report.

NOTE.—The season includes the period from September 1, 1889, to June 1, 1890.

## 3. Transportation (season of 1889 and 1890):

Classification.	Number of vessels employed.	Number of bushels bought.	Number of bushels sold.	Average cost per bushel.	Average price received per bushel.	Where bought.	Where sold.
Steamers .....							
Schooners .....							
Pungies .....							
Sloops .....							
Bug-eyes .....							
Brogans .....							
Luggers .....							

NOTE.—Include all craft engaged in part or exclusively in transporting oysters to market for sale, or for bedding, laying down, and transporting purposes.

## 4. Planters—bedding or laying down:

Total area of grounds seeded, planted, bedded, or laid down during the period from June 1, 1889, to June 1, 1890—acres.

Average quantity planted per acre—bushels.

Cost per acre to plant (a).

Average annual increase per acre (b)—bushels.

Average annual increase in value per acre (b).

Quantity exported from June 1, 1889, to June 1, 1890 (c)—bushels.

Quantity disposed of in domestic markets from June 1, 1889, to June 1, 1890 (c)—bushels.

a Should include rental of ground, cost of seed, plants, etc.; cultch, transportation to and distribution over the grounds; and any state or local taxes other than cost of rental.

b Exercise special care and sound judgment in answering this inquiry.

c Should the schedule be filled previous to June 1, 1890, you can anticipate any probable transaction, or inform this office.

4. Planters—bedding or laying down—Continued.

Value of oysters exported.

Value of oysters sold in domestic markets.

Principal foreign markets.

Principal domestic markets.

Report name of beds from which seed, plants, etc., are secured.

5. Raw and other packers (specify in what engaged):

Value of plant.	Stock in shell used in 1889.		Goods produced in 1889.		Disposition of product.			
	Number of bushels.	Value.	Quantity and basis. (a)	Value.	Domestic markets.		Foreign markets.	
					Quantity.	Value.	Quantity.	Value.
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)

a Basis: Gal., qt., or bbl., and the value to correspond thereto.

b Several blank lines are printed in schedule.

NOTE.—If engaged in the oyster trade in any manner in which sorting or packing increases the monetary value, report under inquiry 5, and name it.

6. Capital:

Distribution (at time of filling schedule):

In steamers, vessels, boats, etc.

In land, buildings, and fixtures.

In apparatus, machinery, and implements, etc.

In stock, supplies, and stores on hand.

In cash (include borrowed money).

In any property not above named.

NOTE.—The idea to get returned as capital all money invested or used in the business, whether owned by the person making the return or borrowed, and values should be estimated at what the property or article would bring at fair sale June 1, 1890.

7. If any colored persons have capital invested in this establishment, state how many and the amount of capital.

8. Labor:

Classification.	Where born.						
	United States.		Great Britain.	France.	Germany.	Italy.	Canada and Provinces.
	White.	Colored.					
Captains .....							
Mates .....							
Engineers .....							
Ordinary seamen .....							
Firemen .....							
Cooks .....							
Laborers—male .....							
Laborers—female .....							
Boys .....							

Classification.	Where born—Continued.			Number naturalized.	Total number.	Number of months employed.	Average monthly wages. (a)	Average monthly earnings of sharemen. (b)
Captains .....								
Mates .....								
Engineers .....								
Ordinary seamen .....								
Firemen .....								
Cooks .....								
Laborers—male .....								
Laborers—female .....								
Boys .....								
[5 blank lines.]								

a The cost of board when furnished should be added to the actual cash wages paid.

b In this column report the average monthly earnings of those employed on "shares."

# 640 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

If you employ any other class of labor, or if the nationality of those employed is other than indicated above, please report on blank spaces left for the purpose.

## NOTICE.

The intention is to place this schedule in the hands of every person engaged in the oyster-producing industry in any of its varied branches. In order, therefore, to obtain complete returns, each person receiving it is earnestly solicited to carefully examine and accurately answer each inquiry as far as applicable, and not to neglect or carelessly fill this schedule.

Any remarks bearing upon this industry as to the average annual catch, quality of catch as compared with that of former years, the effect (beneficial or detrimental) of continued dredging and tonging upon the natural beds, the result that may follow the use of "deep-water tongs," etc., in fact, anything that may be of interest and importance to this industry, can be made on the blank page at the end of this schedule.

## SPONGE FISHERIES.

To .....; County; Post-office; State.

### VESSELS AND BOATS OF 5 TONS AND OVER ENGAGED IN SPONGE FISHERIES IN 1889.

1. Name of vessel.	2. Rig. (a)	3. Net tonnage.	4. When built.
(c)	(c)	(c)	(c)

5. Where built.	6. Cost of outfit for year. (b)	7. Original cost of vessel.	8. Present value.	9. Number of months fishing in 1889.	10. Employment balance of year.
(c)	(c)	(c)	(c)	(c)	(c)

a "Rig" means "schooner," "sloop," "steamer," etc.

b "Outfit" includes all implements and gear, extra sail, rigging, provisions, etc., that vessels require when ready for voyage.

c Several blank lines are printed in schedule.

NOTE.—Nos. 1 to 10 ask for full description of all vessels in your fishery.

### SPONGE TAKEN IN 1889.

Name or grade of sponge. (a)	20. Quantity in pounds.	21. Value.	Name or grade of sponge. (a)	20. Quantity in pounds.	21. Value.
11. Sheepswool .....			18. ....		
12. Velvet .....			19. ....		
13. Boat .....			22. Total value of sponge taken in 1889.....		
14. Yellow .....					
15. Grass .....					
16. Glove .....					
17. ....					

a Add any other varieties taken during the year.

NOTE.—Nos. 11 to 16 is a list of the six principal varieties and grades of sponge. Add in the three following lines any grade taken which does not appear, and give the quantity in No. 20 and value in No. 21 of each kind. No. 22 is the total.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 641

## APPARATUS IN USE.

Name of article. (a)	32. Number.	33. Value.	Name of article. (a)	32. Number.	33. Value.
23. Boats of all kinds under 5 tons (not in the above list) .....			28. Poles.....		
24. Dingies .....			29. ....		
25. Crawls .....			30. ....		
26. Glasses .....			31. ....		
27. Hooks .....			34. Total value of apparatus		

a Add other articles which were used by you during the year and are not mentioned above

NOTE.—All your apparatus should be listed under the title of "apparatus in use." Add such kinds in use as are not mentioned, and give the number and value of each. No. 34 is the total.

## PERSONS EMPLOYED.

35. Where born.	36. Captains.	37. Fishermen. Scullers.   Hookers.	38. Boys.	39. Shore help.	40. Total.
United States (white) .....					
United States (colored) .....					
United States (Indian) .....					
Great Britain .....					
Spain .....					
Portugal .....					
Sweden and Norway .....					
France .....					
Italy .....					
West Indies (white) .....					
West Indies (colored) .....					
41. Total in each class of persons ..					
42. Average monthly earnings of each class for year ending Dec. 31, 1889 .....					

43. Total earnings of all employees in the fishery during the year.

44. Fishermen employed as above between the ages of 18 and 45 years. No.

45. Persons interested as partners in the business—No.

NOTE.—Nos. 35 to 39 call for a complete classification of the persons employed in your fishery, by nationality and grade; that is to say, captains, fishermen, boys, and shore help. No. 40 is the total in each nationality or color. No. 41 is the total number of each grade. No. 42 is the average monthly earnings of each class of employees for the year. No. 43 is the total earnings of all employees. No. 44 calls for the number of fishermen in your employ in 1889 between 18 and 45 years of age. No. 45 calls for the number of partners in the business.

## CAPITAL INVESTED.

Classification.	52. Value.
46. In land, buildings, and wharves in use .....	
47. In vessels, boats, and outfits .....	
48. In apparatus .....	
49. In stores, supplies, and sponge on hand .....	
50. All other assets .....	
51. Cash on hand and deposits .....	
53. Total capital invested .....	

NOTE.—Every asset in your business should appear under this title. In Nos. 46 to 51 carry out each line with the value in No. 52 of each class of investment. No. 53 is the total of the items in No. 52, and must be the total capital invested in the business.

## 642 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## LOSSES AND DISASTERS.

54. Name of vessel or craft lost.	55. Net tonnage.	56. Rig.	57. Value when lost.
(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

58. Number of deaths from accidents or disasters in 1889.

NOTE.—Nos. 54 to 57 call for the name, net tonnage, rig, and value of all vessels lost during the year 1889. No. 58 calls for the number of deaths from accident or disaster in your fishery during the year 1889.

## FISH, SHELLFISH, ETC.

Classification:	Classification—Continued.
59. Bluefish.	73. ...., oil.
60. Mullet.	74. ...., oil.
61. Grouper.	75. ...., oil.
62. Snapper.	76. Fish livers sold for oil.
63. Spanish mackerel.	77. Fish roe or spawn sold.
64. Sturgeon.	78. Fish and refuse sold for fertilizer.
65. Shark.	79. Scales for ornaments, etc.
66. Alligator.	80. Coral.
67. Crab.	81. Shells for ornaments, etc.
68. Crawfish.	82. Beach rock.
69. Green turtle.	83. Sand and gravel.
70. Shrimp.	84. Sea float, etc.
71. ....	85. ....
72. ....	86. ....

87. If any colored persons have capital invested in your business, give the number of persons and the amount of investment.

NOTE.—If your vessels caught or obtained during the year 1889 for profit any of the fish, shellfish, or product in the printed list above, please indicate the fact by a cross-mark opposite the name on the list. Any fish or product not there mentioned, caught or obtained, of whatever name, if of value, should be placed in the blank lines left for that purpose. Lines 73 to 75 are intended for oil *manufactured* by you, while No. 76 is for fish livers sold, to be manufactured into oil. In your return of oil manufactured give the name or kind of oil. No. 87 calls for the number of colored persons (if any) having money invested in your business, and the amount of such investment.

## NOTICE.

This schedule will be placed in the hands of every person carrying on the sponge fishery.

It is hoped that this office will receive your cordial assistance and cooperation in the effort to properly represent this important industry in the census reports. To accomplish this end the most careful and accurate returns from all recipients of the schedule are absolutely indispensable.

The information requested should cover your entire operations for the year ending December 31, 1889. As to values or other information requiring a fixed date, the same should be given as it existed December 31, 1889. Fair market value should be returned in all cases.

Any information relating to the fisheries that may be thought of importance and value to the investigation or in explanation of answers given to questions may be written on the blank page of the schedule.

In referring to questions in the schedule the number of the inquiry should be used.

If you operate in more than one town or city, please return separate schedules for each place.

## WHALE FISHERIES.

To .....; Town (or City): County: State.

## VESSELS.

1. Letter.	2. Name of vessel.	3. Rig.	4. Netton- nage.	5. Home port.	6. Original cost of vessel.	7. Present value of vessel.	8. Horse- power of engine if steam vessel.	9. Num- ber of owners.	10. Number of months employed in 1886.	11. Number of months last year employed.
a										
b										
c										
d										
e										
f										
g										
h										
i										
j										

NOTE.—Every vessel in your employ should be described above. The letters in the left-hand column (a to j) correspond, the lower table being a continuation of the description of the vessels. [Form of table not reproduced as in printed schedule.] Space is given for ten vessels; if more were employed, apply for additional schedule pages. Where values are asked for, fair market value should be returned.

## CAPITAL INVESTED.

Classification.	22. Amount.	Classification	23. Amount.
12. In store supplies and products on hand .....		19. ....	
13. Land .....		20. Other items not mentioned .....	
14. Buildings .....		21. Cash and credit capital, includ- ing borrowed money, ledger ac- counts, etc. ....	
15. Machinery .....			
16. Tools and implements .....		23. Total capital invested .....	
17. Vessels and steamers .....			
18. Wharves, etc. ....			

NOTE.—Nos. 12 to 21 cover the several classes of investment in the fishery. Give the value under No. 22 of each class in your business, and in No. 23 the total of the items. This total should include the value of apparatus, given under Nos. 24 to 36, inclusive.

## APPARATUS, ETC.

Name.	37. Number.	38. Value.	Name.	37. Number.	38. Value.
24. Whaleboats .....			32. Other apparatus .....		
25. Other boats .....			33. ....		
26. Cutting tools and gear .....			34. ....		
27. Harpoons .....			35. ....		
28. Lances .....			36. ....		
29. Bomb lances .....					
30. Trawl works and setting .....			39. Total value of ap- paratus .....		
31. Horses and drays .....					

NOTE.—Nos. 24 to 36 is a list of the apparatus, etc., used in the fishery. Return the number of each kind used in your fishery in No. 37, the value of each kind in No. 38, and the total value of all apparatus used in No. 39.

## OUTFIT AND EXPENSE.

- 40. Cost of all outfits, including fuel, provisions, etc., for year.
- 41. Cost of repairs, including materials.
- 42. Amount paid for freight on supplies out and product home.

# 644 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

43. Amount paid for interest, commissions, and storage.  
 44. Amount paid all other expenses (not including wages).  
 45. Total amount of outfit and expense for year 1889.

NOTE.—The outfit and expense for the year 1889 is called for under this title. Give in No. 45 the total amount of outfit and expense.

## OIL, WHALEBONE, ETC.

Classification.	58. Quantity.	59. Value.	Classification.	58. Quantity.	59. Value.
46. Ambergris .....			54. Seal oil .....		
47. Guano .....			55. Sealskins .....		
48. Bones of whales .....			56. ....		
49. Ivory .....			57. ....		
50. Spermaceti .....			60. Total value of pro- duction .....		
51. Sperm oil .....					
52. Whale oil .....					
53. Whalebone (baleen) .....					

NOTE.—Nos. 46 to 57 cover items of "catch" in the fishery brought in from voyages, but should not include product manufactured on shore. Make full and careful return of the quantity of each kind taken or obtained by all your vessels during the year 1889 in No. 58, and the value in No. 59. Add in blank lines the name, quantity, and value of any product not mentioned, including skins and oil of sea lion, walrus, sea otter, etc. No. 60 is the total value of all for the year.

## WHALES TAKEN.

Name or kind of whale.	73. No. taken.	Name or kind of whale.	73. No. taken.
61. Sperm .....		68. Bottle-nose .....	
62. Right .....		69. Bowhead .....	
63. Humpback .....		70. Killer .....	
64. White (beluga) .....		71. California gray .....	
65. Finback .....		72. "Pike-headed" .....	
66. Russian .....		74. Total .....	
67. Sulphur bottom .....			

NOTE.—The names of the several kinds of whales taken in the whale fishery are given under this title in Nos. 61 to 72. Give the number of each kind taken by all your vessels for the year 1889. No. 74 is the total number for the year.

## PERSONS EMPLOYED.

Grade or rank.	Where born.							
	92. United States.			93. Great Britain and Ireland.	94. Norway and Swe- den.	95. Portugal and Azores is- lands.	96. Pacific Islands.	97. Ger- many.
	White.	Col- ored,	In- dians.					98. Total of each grade.
75. Captains .....								
76. First mates .....								
77. Second mates .....								
78. Third mates .....								
79. Fourth mates .....								
80. Fifth mates .....								
81. Boat steerers .....								
82. Coopers .....								
83. Ship keepers .....								
84. Stewards .....								
85. Cooks .....								
86. Blacksmiths .....								
87. Able seamen .....								
88. Green hands .....								
89. Boys .....								
90. Shore laborers .....								
91. Clerks and office help .....								
99. Total by nation- ality .....								

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 645

## PERSONS EMPLOYED—continued.

Grade or rank.	Wages and earnings.		
	100. How paid.		101. Average monthly earnings of each class.
	Share.	Wages.	
75. Captains.....			
76. First mates.....			
77. Second mates.....			
78. Third mates.....			
79. Fourth mates.....			
80. Fifth mates.....			
81. Boat steerers.....			
82. Coopers.....			
83. Shipkeepers.....			
84. Stewards.....			
85. Cooks.....			
86. Blacksmiths.....			
87. Able seamen.....			
88. Green hands.....			
89. Boys.....			
90. Shore laborers.....			
91. Clerks and office help.....			
99. Total by nationality.....			

NOTE.—Class your employees by nationalities in Nos. 92 to 97, inclusive, erasing such nationalities as are not employed and adding such others as are employed and not mentioned. All foreigners who have been naturalized should be designated in column 92 as white or colored, as the case may be. No. 98 is the total in each grade. No. 99 is the total of each foreign class by nationality. In No. 100 should be indicated, by mark, whether employees mentioned are paid by share or wages, and in 101 should be placed the average monthly earnings of each grade for the year 1889 (numbers 75 to 91).

102. Total amount paid all employees in year ending December 31, 1889.

103. Number of employees (not including shore help and clerks and office help) in your employ between the ages of 18 and 45 years.

104. If any colored persons have money invested in your business or in your vessels, return number of persons and amount of investment.

NOTE.—No. 102 should be the total amount paid all employees for the year 1889. No. 103 asks for the number of employees (not including those employed on shore) between the ages of 18 and 45 years. No. 104 calls for the number of colored persons (if any) having capital in your business or vessels, and amount invested therein.

## LOSSES AND DISASTERS.

105. Name of vessel lost.	106. Value.	107. Where lost.	108. Number of deaths from accidents or dis- asters among your em- ployees during the year 1889.
(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

109. In your return of weight by tons (if any) in this schedule have you used short tons of 2,000 pounds or long tons of 2,240 pounds?

110. Give any new waters in which whales were taken during the year.

NOTE.—Under Nos. 105 to 108 should be given the names and values of vessels lost during the year 1889, and where lost; also the number of deaths from accident or disaster in that time. No. 109 explains whether long or short tons are used in your return of weight by tons. No. 110: Give any new whaling grounds in which your vessels took whales in the year 1889, with full information.

## GENERAL INSTRUCTIONS.

This schedule will be placed in the hands of every person engaged in the whale fisheries, and all persons interested in this important industry should be aware that

the most careful and accurate returns are needed in order that these fisheries may be properly represented in the coming census reports. It is hoped that the census office will receive your cordial assistance, and that you will carefully fill in the answers to the questions in the schedule.

The information requested should cover your entire operations for the year ending December 31, 1889, as most nearly conforming to the "census year." As to values or other information requiring a fixed date, the same should be given as it existed December 31, 1889.

Any information relative to the fisheries of importance and value to the investigation or in explanation of answers given to questions may be written on the blank page of the schedule.

In referring to questions in the schedule the number of the inquiry should be used.

If you operate in more than one town or city, please return separate schedules for each place.

If for any reason the year 1889 can not be covered by your return, then a previous year may be taken.

---

### COMMERCE.

[The inquiries relating to commerce at the census of 1840 were contained in a "Schedule of Mines, Agriculture, Commerce, Manufactures, etc.," the complete heading for which is reproduced under the heading of "Agriculture."]

#### CENSUS OF 1840.

Number of commercial houses in foreign trade.  
 Number of commission houses.  
 Capital invested.  
 Retail dry goods, grocery, and other stores.  
 Capital invested.  
 Lumber yards, and trade.  
 Capital invested.  
 Number of men employed.  
 Internal transportation—number of men employed.  
 Butchers, packers, etc.—number of men employed.  
 Capital invested.

---

### SOCIAL STATISTICS.

[The schedule relating to social statistics was used only at the censuses of 1850, 1860, and 1870, being withdrawn at the censuses of 1880 and 1890 and the several subjects committed to special agents, under the provisions of the acts governing these two censuses.]

#### CENSUS OF 1850.

SCHEDULE 6.—SOCIAL STATISTICS of ....., in the County of ....., State of ....., for the year ending June 1, 1850, as enumerated by me. ...., Ass't Marshal.

1. Name of division.
2. Valuation of estate, real and personal:
  - Real estate.
  - Personal estate.
  - Total.
  - How valued?
  - True valuation.
- Annual taxes:
3. Name or kind of each.
4. Amount of each.
5. How paid.
- Colleges, academies, and schools:
6. Number.
7. Character, rank, or kind.
8. Number of teachers.
9. Number of pupils.

- Colleges, academies, and schools—Continued.
10. Amount annually realized from endowment.
  11. Raised by taxation.
  12. Received from public funds.
  13. Received from other sources.
- Seasons and crops:
14. What crops are short.
  15. To what extent.
  16. Usual average crop.
  17. Name of division. (a)
- Libraries:
18. Number.
  19. Kind.
  20. Number of volumes.
- Newspapers and periodicals:
21. Name.
  22. Character.
  23. How often published.
  24. Circulation.
- Religion:
25. Number of churches.
  26. Denomination.
  27. Number each will accommodate.
  28. Value of church property.
  29. Name of division. (a)
- Pauperism:
- Whole number of paupers supported within the year:
30. Native.
  31. Foreign.
- Whole number on 1st June:
32. Native.
  33. Foreign.
- Cost of support.
- Crime:
- Whole number criminals convicted within the year:
35. Native.
  36. Foreign.
- In prison on 1st June:
37. Native.
  38. Foreign.
- Wages:
39. Average monthly wages to a farm hand with board.
  40. Average to a day-laborer with board.
  41. Average to a day-laborer without board.
  42. Average day wages to a carpenter without board.
  43. Weekly wages to a female domestic with board.
  44. Price of board to laboring men per week.

## EXPLANATION OF SCHEDULE 6.—SOCIAL STATISTICS.

The information required in this schedule is not to be ascertained entirely by personal inquiry of individuals, but in part from the public records and reports, and public offices of towns, counties, states, or other sources of information.

The information which it purposes to obtain should be separately entered for the civil subdivisions of each assistant division as far as practicable, even when there are several of such towns, etc., in one assistant marshal's district. The title of the schedule is to be filled by inserting after the words "*Social statistics*" the name of the division, county, and state where situated, and the signature of the assistant marshal on each return of each separate *blank*. In filling this schedule, the matters relating to taxation and valuation will necessarily be obtained from the county records.

1. Under heading 1, entitled "Name of division," insert name of the district, town, city, township, ward, or parish of such division.

2. Under heading 2, entitled "*Valuation of estate, real and personal*," insert, as the fact may be, opposite *real*, the amount in *dollars* (omitting cents in all cases) of the aggregate valuation of all the real estate in the division; and opposite *personal*,

a Page of schedule subdivided and column for "name of division" repeated.

the aggregate valuation of all the personal estate in the division. Add these together, if your district includes a whole county, and insert the *amount as the total valuation* of the town or county. In some places no distinction is made between the real and personal estate. In such cases, the aggregate value of both only is to be inserted in column No. 2, and the word "and" to be written between the words "real" and "personal," and the other spaces are to be left blank. After "*How valued*," state the title of the officers who rated the value as previously stated.

The "true valuation" of all property should be estimated at what is its cash value in the place where it is situated. In some places, however, it is valued by appraisers at two-thirds or one-half of its just value, and the assessment made upon such valuation. If in the estimate of an estate it is valued at other than its true worth, the true valuation should be stated, which may easily be done by adding the proper per centum to the *recorded valuation*.

8. Under the heading "*Annual taxes*," and in the appropriate columns, insert the name of each tax assessed, and the amount of each kind. Where the public records are appealed to for valuation and taxes, great care will be necessary to avoid confusion. Where these returns do not exist with reference to the subdivisions, one or more assistants in a county may omit them, when he knows them to be returned by another; but he must state the fact on the face of his own schedule, and the same fact must appear in the schedule of the one taking the same, viz, that it is for the *entire county*.

5. Under No. 5 is to be entered the manner in which a certain tax is paid. As the fact may be, insert the words cash, work, or half cash, half work, etc.

#### COLLEGES, ACADEMIES, AND SCHOOLS.

6, 7, 8, 9, 10, 11, 12, and 13. These columns are to include an account of all places where educational instruction is imparted to the youth of the land. Where there are more than one of a particular kind in your district, you may give the number of such in column No. 6; and if there be but one of a particular character, you will place the figure in this column.

Under the heading "*Rank or kind*," you are to insert the character of the educational institution; specify whether it be a college, academy, female seminary, public school, military, theological, or other school. After such description, give the usual number of teachers or professors in column 8; then, under the proper heading (9), state the average number of scholars in regular attendance.

10. Under this heading give the amount annually realized from any permanently invested fund. You are not to give the amount invested, but the annual resource or return from such investment.

11. Under heading 11 you are to state the amount received by each institution from taxes assessed for educational purposes. If no record exists from which you can ascertain the amounts received by *each* in the way of taxes, insert at the foot of the column (11) the gross amount of taxes assessed in your district for school purposes.

12. Under this heading you will give the amount received the past year from state or district appropriations, not including any part of the *tax assessed* for this special purpose.

13. Under column 13 you should include the amounts annually received from sources not enumerated in the other columns.

#### LIBRARIES.

18, 19, and 20. In these columns you are to give in regular order an account of the number and kind of libraries, and the number of volumes contained therein. Where *private* libraries contain 1,000 volumes or more, the particulars relating thereto should be given. This will only be known by inquiry of individuals, who may be supposed to possess such collections, and the assistant should not overlook the same.

#### NEWSPAPERS AND PERIODICALS.

21, 22, 23, and 24. Under the heading "*Newspapers and periodicals*," record the character and circulation of every paper and periodical published in your district. Cases exist where the publication purports to be issued simultaneously in two or more places; in such instances the whole number is to be entered *where the printing is done*.

You are to state each account separately: First enter the name of the publication, then its character, whether scientific, literary, political, religious, medical, or agricultural. If religious, give the initial of the denomination; also, if political.

## RELIGION.

25, 26, 27, and 28. Under the heading entitled "Religion," insert a separate account of churches, and other places of worship, belonging to all religious denominations, in the town or county described, including halls and chapels, if statedly used as places of public worship. By number of sittings is meant the number of seats for individuals in such places of worship, or the number of persons they will accommodate.

Under the "Value of church property," is to be inserted the present value of each of the churches or chapels, including the lands and estate, real and personal, owned by such religious societies. If a chapel or other place of worship is *rented*, its value is not to be here included; in such case you must include the name of denomination and the number of members, leaving blank the column numbered 28. As it is possible for a society to have property without a place of worship, the value of such property should be given in column No. 28. The facts relating to churches may generally be obtained with perfect accuracy from the pastor or clergyman having the same in charge; and, in case of his absence, application should be made to a warden, elder, or trustee.

## PAUPERISM.

Under column 30 you must give the whole number of paupers of American birth who have received public *support within the year*, and under column 31 must be entered the whole number of paupers born out of the United States who have been supported, in whole or in part, within your subdivision.

The whole number of those public paupers, native, *supported on the 1st June*, is to be inserted in No. 32, and the number of those of foreign birth, *supported on the 1st June*, in column 33. The cost of the support of all public paupers within your subdivision is to be inserted in column 34.

It is presumed that the facts with reference to columns 30 and 31 may be inserted from your public records; the facts with reference to 32 and 33 will be obtained with certainty by population schedule No. 1. The cost of support can be obtained, it is presumed, from your county, parish, or other records. You will avail yourself of the best sources of information within reach, and, where the exact amount can not be obtained, insert the nearest estimate at which you may be enabled to arrive.

## CRIME.

The directions with reference to "Pauperism" will apply to columns 35, 36, 37, and 38.

## WAGES.

The information called for in the six columns relating to wages is so simple, and so plainly set forth in the headings thereof, that it is deemed unnecessary to add thereto.

## REMARKS.

You will be expected to have all your duties in connection herewith performed previous to the first day of October next, and by that date to have forwarded the two copies of the returns, as by law required, to the marshal of your district, and to have filed one copy thereof with the proper officer of your subdivision.

With the explanation and directions given in the foregoing pages, it is believed that the marshals and their assistants will be enabled, without further information, to proceed to the proper discharge of their duties in taking the seventh census.

## CENSUS OF 1860.

SCHEDULE 6.—SOCIAL STATISTICS of ....., in the County of ....., State of ....., for the year ending June 1, 1860, as enumerated by me. ...., Asst. Marshal.

1. Name of division.
2. Valuation of estate, real and personal:
  - Real estate.
  - Personal estate.
  - Total.
  - How valued?
  - True valuation.

- Annual taxes:
3. Name or kind of each.
  4. Amount of each.
  5. How paid.
- Colleges, academies, and schools:
6. Number.
  7. Character, rank, or kind.
  8. Number of teachers.
  9. Number of pupils.
  10. Amount annually realized from endowment.
  11. Raised by taxation.
  12. Received from public funds.
  13. Received from other sources.
- Seasons and crops:
14. What crops are short.
  15. To what extent.
  16. Usual average crop.
17. Name of division. (a)
- Libraries:
18. Number.
  19. Kind.
  20. Number of volumes.
- Newspapers and periodicals:
21. Name.
  22. Character.
  23. How often published.
  24. Circulation.
- Religion:
25. Number of churches.
  26. Denomination.
  27. Number each will accommodate.
  28. Value of church property.
29. Name of division. (a)
- Pauperism:
30. Whole number of paupers supported within the year:
    - Native.
    - Foreign.
  31. Whole number on 1st June:
    - Native.
    - Foreign.
  32. Native.
  33. Foreign.
  34. Annual cost of support.
- Crime:
35. Whole number of criminals convicted within the year:
    - Native.
    - Foreign.
  36. In prison on 1st June:
    - Native.
    - Foreign.
  37. Native.
  38. Foreign.
- Wages:
39. Average monthly wages to a farm hand with board.
  40. Average to a day-laborer with board.
  41. Average to a day-laborer without board.
  42. Average day wages of a carpenter without board.
  43. Weekly wages to a female domestic with board.
  44. Price of board to laboring men per week.

---

a Page of schedule subdivided and column for "name of division" repeated.

## CENSUS OF 1870.

SCHEDULE 5.—SOCIAL STATISTICS of ....., in the County of ....., State of ....., for the year ending June 1, 1870, as enumerated by me. ...., Ass't Marshal.

1. Valuation:
  - Real estate.
  - Personal estate.
  - Total.
  - How valued?
  - True valuation.
2. Public debt:
  - County debt for which bonds have been issued.
  - All other county debt.
  - Town, city, township, parish (civil), or borough debt for which bonds have been issued.
  - All other town, city, township, parish (civil), or borough debt.
3. Taxation (not national):
  - State (of all kinds).
  - County (of all kinds).
  - Town, city, township, parish (civil), or borough (of all kinds).
  - Total.
  - Below indicate the principal kinds of taxes included in the above.
4. Pauperism:
  - Whole number of paupers supported during the year:
    - Native.
    - Foreign.
  - Whole number June 1, 1870:
    - Native white.
    - Native black.
    - Foreign.
  - Annual cost of support.
5. Crime:
  - Whole number of criminals convicted during the year:
    - Native.
    - Foreign.
  - Whole number in prison June 1, 1870:
    - Native white.
    - Native black.
    - Foreign.
6. Libraries:

Kind.	Number.	Number of volumes.
State libraries.....		
Town or city libraries.....		
Libraries of courts.....		
Church libraries (pastors').....		
Sabbath-school libraries.....		
Circulating libraries (subscription).....		
Private libraries, including those of lawyers and clergymen.....		

7. Wages:
  - Average wages to farm hand per month, hired by the year and boarded.
  - Average wages of a day-laborer without board.
  - Average wages of a day-laborer with board.
  - Average payment to a carpenter per day without board.
  - Average wages to a female domestic per week with board.
  - Average price of board to a laboring man per week.
8. Newspapers and periodicals:
  - Name.
  - Character.
  - How often published.
  - Average circulation.

# 652 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## 9. Colleges, academies, and schools:

Number.	Character, rank, or kind.	Average number of teachers.		Average number of pupils.		Income, year ended June 1, 1870.			
		Males.	Females.	Males.	Females.	From endowment.	Raised by taxation.	Received from public funds.	Received from other sources, including tuition.
	Classical:								
	Universities .....								
	Colleges .....								
	Academies .....								
	Professional:								
	Law .....								
	Medicine .....								
	Theology .....								
	Technological .....								
	Schools of mining .....								
	Schools of art and music .....								
	Commercial .....								
	Military .....								
	Public schools:								
	Normal .....								
	High .....								
	Grammar .....								
	Graded common .....								
	Ungraded common .....								
	Private schools:								
	Day .....								
	Boarding .....								
	Parochial schools .....								
	Charity schools .....								

## 10. Religion:

Number of church organizations.

Number of church edifices.

Denomination.

Total number which churches of each denomination will accommodate.

Value of church property.

## EDUCATION.

[The inquiries relating to "Schools, etc.," at the census of 1840 are contained in the schedule for "Population," and the inquiries relating to "Colleges, Academies, and Schools" at the censuses of 1850, 1860, and 1870 in the schedule for "Social Statistics."

The special schedules used at the censuses of 1880 and 1890 called for a separate return for each school or institution to which sent, and where the inquiries are tabular in form they have been so reproduced.]

## CENSUS OF 1880.

### SPECIAL SCHEDULE I.—PUBLIC ELEMENTARY SCHOOLS.

In this class are included all public schools below the grade of high schools, whether conducted independently or as parts of a graded system. Common or district schools in towns and parishes, ward schools of the same grade in cities, kindergarten and other infant or primary schools, and all other elementary public schools should be here reported.

#### A.—Location, buildings, accommodations, etc.

1. State; county.
2. Town, parish, or city—state which.
3. District No. or ward No.—state which.
4. Designation or name of school (if more than one in the same district or ward, make separate reports, carefully designating each).

5. If the school is intended for children of a given age or class, or if the instruction is of a special character or has peculiar features, give particulars.
6. Number of school buildings; uses of each.
7. Number of study rooms used by this school.
8. Number of recitation (other than study) rooms used by this school.
9. Seats now provided; number additional seats for which there is room; total seating capacity.
10. Has due regard been given to hygienic conditions in the construction and appointments of the school building and its surroundings? Indicate most obvious defects.
11. If other schools are taught in the same building, please state the number and character of such schools.

## B.—Teachers, pupils, etc.

12. Name and full postal address of principal or head teacher.
13. Different teachers:  
     White—Male; female; total of white teachers.  
     Colored—Male; female; total of colored teachers.  
     Total number of different teachers.
14. Qualification and salaries of teachers:

	Sex. (a)	Educated at high school or academy; state which, and where located.	Years of study.	Educated at normal or other college; state which, and where located.	Years of study.	By what authority (through diploma or otherwise) entitled to teach.	Salary per month.	Number of months employed last year.
Principal .....								
Assistants (b) .....								

<sup>a</sup> Indicate sex of principal or assistant as follows: "M" (male); "F" (female); "C" (colored).

<sup>b</sup> Repeated five times in printed schedule.

15. Different pupils in attendance on elementary school during last school year:  
     White—Male; female; total.  
     Colored—Male; female; total.  
     Total number of different pupils.
16. Average daily attendance in school year 1880.
17. Pupils under 6 years of age in attendance during last school year, stated as accurately as possible:  
     White—Male; female; total.  
     Colored—Male; female; total.  
     Total number of pupils under 6 years, etc.
18. Pupils over 16 years of age in attendance on elementary school during last school year, stated as accurately as possible:  
     White—Male; female; total.  
     Colored—Male; female; total.  
     Total of pupils over 16 years, etc.
19. If the law provides for the compulsory attendance of pupils of school age, state to what extent the statute is enforced, and give other particulars of interest.
20. Is a record kept of the standing of pupils?

## C.—Instruction, libraries, and apparatus.

21. Text-books:  
     Is uniformity required in their use?  
     Are they provided at the expense of the public?  
     By what authority is their choice determined?
22. Is instruction given from text-books or orally (state which) in the rudiments of any of the following studies?  
     Botany; natural philosophy; physical geography; physiology.
23. Is instruction given in drawing? If so, of what character, and to what extent?
24. Is instruction given in music? If so, of what character and to what extent?

654 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

25. Is instruction given in the rudiments of political science, with special reference to the character and workings of the Government and institutions of the United States, the privileges and obligations of citizenship, etc.?
  - Name of text-book.
  - Character and frequency of instruction given.
26. Is instruction given to boys in bookkeeping or other studies specially preparing them for business? Give particulars.
27. Is instruction given to girls in the principles of domestic economy, care of the sick, or in other studies specially preparing them for housekeeping? Give particulars.
28. Are pupils regularly exercised in calisthenics, gymnastics, or military drill? Give particulars.
29. Is the kindergarten method in use? If so, to what extent?
30. Are other than the ordinary elementary branches taught, in addition to those already named? Give particulars.
31. Number of school hours—morning; afternoon.
32. Give date on which school year begins; ends.
33. Whole number of days on which school was taught during last school year.
34. Has the elementary school a library of its own? If so, state number of bound volumes.
35. Name and postal address of librarian or custodian of library.
36. To what extent is this school provided with the following illustrative apparatus: Astronomical; philosophical; for object teaching; other.

D.—*Finances, etc.*

NOTE.—If the school is conducted in connection with others (for instance, as a department of a graded system), report only that portion of funds received or expended which was applied to the uses of this particular school or department.

37. Sources of income:
  - From state taxes.
  - From town or city taxes.
  - From public funds derived from license fees, dog taxes, etc.
  - From other public funds.
  - From Peabody fund.
  - From private gifts to be applied to current expenses.
  - From tuition fees.
  - From all other sources.
  - Total receipts for elementary school.
38. Expenditures:
  - For rent of buildings.
  - For repairs of buildings.
  - For teachers' salaries (total).
  - For text-books.
  - For school furniture.
  - For apparatus.
  - For library.
  - For all other purposes.
  - Total expenditures for elementary school.
39. If public evening schools are conducted in the same district or ward with the school above reported, please give name and full postal address of proper person from whom information may be obtained concerning each.

General remarks.

NOTE.—If remarks are made concerning any of the foregoing questions, please indicate the number of the question referred to at beginning of such remarks.

SPECIAL SCHEDULE II.—PUBLIC HIGH SCHOOLS.

Under this classification are included public schools above the grade of "Elementary" (such as high schools, classical schools, academies, etc.,) chiefly devoted to instruction in the English branches. All public high schools, whether conducted as distinct schools or as parts of a graded system, should be here reported.

Inquiries numbered 1 to 5 and 7 to 15, inclusive, in special schedule I are common to this schedule except that "pupils" is used instead of "children" in inquiry 5; "high school" is used instead of "this school" in inquiries 7 and 8, and "on elementary school" is omitted in inquiry 15, and are not reproduced.]

f the law provides for the compulsory attendance of pupils of school age, state to what extent the statute is enforced, and give other particulars of interest.

C.—*Instruction, libraries, apparatus, etc.*

Is there a regular course of study? Number of years.  
 By what authority is the choice of text-books determined?  
 Is uniformity required as to text-books used?  
 Are ancient languages taught, and to what extent?  
 Are modern languages taught, and to what extent?  
 Is instruction given from text-books or orally in political science, with special reference to the character and workings of the Government and institutions of the United States, the privileges and obligations of citizenship, etc.?  
 Name of text-book.  
 Character and frequency of instruction given.  
 Is instruction given in drawing? If so, of what character, and to what extent?  
 Is instruction given in music? If so, of what character, and to what extent?  
 Is instruction given from text-books or orally (state which) in—  
     Botany; geology; physics; natural sciences generally.  
 Is instruction given in physiology? If so, of what character, and to what extent?  
 Is instruction given to boys in bookkeeping, or other studies specially preparing them for business? Give particulars.  
 Is instruction given to girls in the principles of domestic economy, care of the sick, or in other studies specially preparing them for housekeeping? Give particulars.  
 Does the instruction include preparation for college?  
 For what colleges were youths prepared during school year 1880?

Name of college, and where located.		Youths prepared.			Youths admitted.		
		Male.	Female.	Total.	Male.	Female.	Total.
(a)	White ....						
	Colored...						

<sup>a</sup> Four blank spaces are printed in schedule, and the words "white" and "colored" repeated four times.

Number of school hours—morning; afternoon. Average of daily attendance.

Give date on which last school year began; ended.

Whole number of days on which school was taught during last school year.

Has the high school a library of its own? If so, state number of bound volumes.

Name and postal address of librarian or custodian of library.

Cabinets and collections illustrative of Natural History:

    Botany; geology; physics; other.

Illustrative apparatus:

    Astronomical; philosophical; scientific; miscellaneous.

D.—*Finances, etc.*

NOTE.—If the school is conducted in connection with others (for instance, as a department of high school or academy), report only that portion of funds received or expended which was applied to the uses of this particular school or department.

Value of buildings and belongings:

    Estimated value of school buildings and grounds if permanently devoted to school purposes.

    Estimated value of library.

    Estimated value of cabinets, collections, etc.

    Estimated value of illustrative apparatus.

    Total value of buildings and belongings.

    Increase in value of buildings and belongings by actual expenditure since the census of 1870.

Indebtedness on properties above reported:

    Mortgages.

    Other indebtedness.

    Total.

Sources of income—high school only:

    From state taxes.

    From town or city taxes.

    From public funds derived from license fees, dog taxes, etc.

    From other public funds.

    From Peabody fund.

    From private gifts to be applied to current expenses.

    From tuition fees.

    From all other sources.

    Total receipts for high

656 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Expenditures—high school only:

- For rent of buildings.
- For repairs.
- For insurance.
- For teachers' salaries (total).
- For text-books.
- For school furniture.
- For apparatus.
- For library.
- For all other purposes, including current expenses.
- Total expenditures for high school.

General remarks.

SPECIAL SCHEDULE III.—PRIVATE ELEMENTARY SCHOOLS.

In this class are included all private schools below the grade of high schools and academies, whether conducted as separate schools or as parts of a graded system. Kindergarten and primary schools, schools above the grade of primary, sometimes designated as secondary, and all other private elementary schools, should be reported under this head.

A.—*Location, buildings, accommodations, etc.*

State; county.

Town; city (state which).

Designation or name of school.

If the school is exclusively for boarders or day scholars; if intended for children of a particular age or class, or if the instruction is of a special character, give particulars.

Under which of the following auspices is the school conducted:

- Of one or more of the teachers?
- Of one or more citizens, not teachers?
- Of an incorporated board of trustees?
- Of a religious denomination?

If the school is connected with a religious denomination, name the denomination and give particulars as to the connection.

If aid is received from the state, on what ground is such aid granted?

If this school is a department of a graded system, and other schools are taught in the same building, indicate the grade and character of each.

Number of school buildings; to what purposes devoted?

Number of study rooms used by this school.

Number of recitation (other than study) rooms used by this school.

Seating capacity:

Number of suitable seats now provided for pupils.

Additional number which may be provided in present building.

Total present seating capacity.

Has due regard been given to hygienic conditions in the construction and appointments of the school building and its surroundings? Indicate most obvious defects.

B.—*Teachers and pupils.*

Name and full postal address of principal or head teacher.

Number, sex, position, qualifications, and salaries (a) of teachers:

Number.	Sex (b).	Position.	High-school or academy, where prepared.	Years in.	Normal or other college, where prepared.	Years in.	By what authority (diploma or otherwise) authorized to teach.	Salary—average per month.	Months employed last year.
(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)

<sup>a</sup>Salaries of teachers chiefly employed in other departments, as in the higher departments of a graded school, should be reported in the schedule relating to high schools, etc., and not included here.

<sup>b</sup>Indicate sex as follows: "M." (male); "F." (female). Indicate colored teachers, both male and female, by an asterisk.

<sup>c</sup>Several blank lines are printed in schedule.

Different pupils in attendance during last school year:

White—Male; female; total.

Colored—Male; female; total.

Total number of different pupils.

Number of above pupils who are boarders.

Number of above pupils who are day pupils.

Number of pupils under 6 years of age in attendance during last school year:

White—Male; female; total.

Colored—Male; female; total.

Total of pupils under 6 years, etc.

Number of pupils between the ages of 6 and 16 in attendance during last school year:

White—Male; female; total.

Colored—Male; female; total.

Total of pupils between 6 and 16 years.

Number of pupils over 16 years of age in attendance during last school year:

White—Male; female; total.

Colored—Male; female; total.

Total of pupils over 16 years, etc.

Average daily attendance of pupils during last school year.

Estimated average age of pupils in attendance during last school year.

#### C.—*Instruction, libraries, apparatus, etc.*

Is uniformity required as to text-books used?

If instruction is given in the rudiments of any of the following branches, state of what character and to what extent:

Astronomy; botany; physical geography; natural philosophy; physiology; drawing; ancient languages; modern languages; music; political science, with special reference to the government and institutions of the United States, the duties and privileges of citizenship, etc.

Text-books used.

Bookkeeping or other studies specially preparing boys for business.

Domestic economy, care of the sick, or other studies specially preparing girls for housekeeping.

Text-books used.

Character and frequency of instruction given.

If instruction is given in other branches than those named (exclusive of reading, writing, arithmetic, grammar, geography, and other elementary English branches), give particulars.

If pupils are regularly exercised in calisthenics, gymnastics, or military drill, give particulars.

If the kindergarten method is in use, state to what extent.

If this elementary school has a library of its own, state number of bound volumes; name and postal address of librarian or custodian of library.

To what extent is the school provided with the following illustrative charts or apparatus:

Astronomical; geographical, etc.; drawing; philosophical; physiological for object-teaching; other.

If other day or evening private schools are conducted in the same town, parish, ward, or village in which the school above reported is situated, give name and postal address of proper person from whom information may be obtained.

Number of school hours—morning; afternoon.

Give dates on which school year covered by this report began; ended.

Whole number of days on which school was taught during last school year.

#### D.—*Finances.*

NOTE.—If the school is conducted in connection with others (for instance, as a department of a high school or academy) report only that portion of funds received or expended which was applied to the uses of this particular school or department.

Value of buildings and belongings:

Total value of school buildings and grounds if permanently devoted to school purposes:

Value of library.

Value of illustrative apparatus, cabinets, etc.

Total value of buildings and belongings.

Increase in value of buildings and belongings by actual expenditure since the census of 1870.

## Value of buildings and belongings—Continued.

## Invested funds:

Endowments.

Prize funds (total amount).

All other funds.

Increase in amount of invested funds since 1870.

## Indebtedness on properties reported above:

Mortgages.

Miscellaneous.

Total.

## Sources of income last school year:

From invested funds.

From tuition fees.

From appropriations of state funds.

Other public funds.

From private sources.

Total income.

## Expenditures last school year:

Salaries of instructors (total).

Rent of buildings.

Insurance.

Apparatus.

Library.

Prizes.

All other expenses.

Total expenditures.

## General remarks.

## SPECIAL SCHEDULE IV.—PRIVATE HIGH SCHOOLS.

This classification includes institutions designated as academies, classical schools, select schools, parish or parochial schools, military institutes, preparatory schools, and all other private high schools.

*A.—Location, buildings, accommodations, etc.*

1. State; county.
2. Town, parish, or city—state which.
3. Designation or name of school.
4. Date of organization.
5. If the instruction is of a special character or has peculiar features, give particulars.
6. Under which of the following auspices is the school conducted:
  - Of one or more of the teachers?
  - Of one or more citizens, not teachers?
  - Of a board of trustees, incorporated or not—state which?
  - Of a religious denomination?
7. If the school is conducted under the auspices of a religious denomination, indicate the denomination.
8. If aid is received from the state, on what conditions is such aid granted.
9. If other schools are taught in the same building, indicate the grade and character of each.
10. Number of school buildings; to what purposes devoted.
11. Number of study rooms used by this school or department.
12. Number of recitation (other than study) rooms used by this school or department.
13. Seating capacity: Number of suitable seats now provided for pupils in this school or department; additional number which may be provided in same; total present seating capacity.
14. Has due regard been given to hygienic conditions in the construction and appointments of the school building or buildings and surroundings? Indicate most obvious defects.

*B.—Teachers, pupils, etc.*

15. Name and postal address of principal or head teacher.
16. Different teachers:
  - White—Male; female; total of white teachers.
  - Colored—Male; female; total of colored teachers.

## 17. Qualifications and salaries of teachers:

	Sex. (a)	Educated at what high school or academy.	Years of study.	Educated at what normal or other college.	Years of study.	By what authority (through diploma or otherwise) entitled to teach.	Average salary per month.	Number of months employed last year.
Principal .....								
Assistant (b) .....								

<sup>a</sup> Indicate sex of principal or assistant as follows: "M" (male); "F" (female). Indicate colored teachers, male or female, by an asterisk.

<sup>b</sup> Repeated eight times in printed schedule.

## 18. Different pupils in attendance during last school year:

White—Male; female; total.

Colored—Male; female; total.

Grand total of different pupils.

## 19. Number of above who are boarding pupils.

## 20. Average daily attendance of pupils during last school year.

## 21. Estimated average age of pupils in attendance during last school year.

## C.—Instruction, libraries, apparatus, etc.

## 22. Is uniformity required as to text-books used?

## 23. If instruction is given in any of the following branches, state of what character and to what extent:

Botany; geology; physics; natural sciences generally; physiology; ancient and modern languages; bookkeeping or other studies specially preparing boys for business; domestic economy, care of the sick, or other studies specially preparing girls for housekeeping; name of text-book; music and drawing; political science, with special reference to the government and institutions of the United States, the privileges and obligations of citizenship, etc.; name of text-book.

## 24. If instruction is given in other branches than those named above, exclusive of the ordinary English branches, give particulars.

## 25. If pupils are regularly exercised in calisthenics, gymnastics, or military drill, give particulars.

## 26. Is there a regular course of study? Number of years. Are diplomas or certificates given to those who complete their course? How many completed the course in 1880?

## 27. Does the instruction include preparation for college?

## 28. For what colleges were pupils prepared during last school year?

Name of college and where located.		Youths prepared.			Youths admitted.		
		Male.	Female.	Total.	Male.	Female.	Total.
(a)	White .....						
	Colored .....						

<sup>a</sup> Eight blank lines printed in schedule, and the words "White" and "Colored" repeated four times.

## 29. Number of school hours—morning; afternoon. Average daily attendance.

## 30. Dates on which last school year began; ended.

## 31. Whole number of days on which school was taught during last school year.

## 32. Number of bound volumes in library.

Is this library intended for the special use of this school or department?

Name and address of the librarian or custodian of library.

## 33. Cabinets and collections illustrative of natural history, illustrative apparatus, etc., with particulars regarding same:

Botany; geology; physics; miscellaneous; astronomical apparatus; philosophical apparatus; scientific apparatus; miscellaneous apparatus.

## 34. If other day or evening public or private schools are conducted in the town, parish, ward, or village in which the school above reported is situated, please give name and postal address of proper person to whom application can be made for information.

D.—*Finances.*

35. Value of buildings and belongings:
  - Estimated value of school buildings and grounds, if permanently devoted to school purposes.
  - Estimated value of library.
  - Estimated total value of cabinets, collections, etc.
  - Estimated total value of illustrative apparatus.
  - Total value of buildings and belongings.
36. Incumbrances on above properties:
  - Mortgages.
  - Other indebtedness.
  - Total.
37. Invested funds:
  - Endowments.
  - Prize funds (total amount).
  - All other funds.
  - Total of invested funds.
38. Sources of income (last school year):
  - From invested funds.
  - From tuition fees.
  - From appropriations of public moneys.
  - From private sources.
  - Total income.
39. Expenditures (last school year):
  - Salaries of instructors (total).
  - Rent of buildings.
  - Insurance.
  - Apparatus.
  - Library.
  - All other expenses.
  - Total expenditures.
- General remarks.

## SCHEDULE IV.—PRIVATE HIGH SCHOOLS.

[Revised.]

This classification includes institutions designated as academies, classical schools, select schools, parish or parochial schools, military institutes, preparatory schools, and all other private high schools.

Statistics of the ....., in the County of ....., State of .....  
 Report made by ....., Principal. P. O. address .....

4. Date of organization of school.
5. Is it a school—
  - (a) For white children.
  - (b) For colored children.
  - (c) Exclusively for boarding pupils.
  - (d) Exclusively for day pupils.
  - (e) For both boarding and day pupils.
- 6, 7. Is it conducted under auspices of—
  - (a) Teachers?
  - (b) Citizens?
  - (c) Incorporated board of trustees?
  - (d) Religious denomination? (Give name of denomination.)
8. Does it receive aid from the state.
10. Number of school buildings occupied by this school.
11. Has the school more than one study room?
12. Has the school more than one recitation room?
13. (a) Whole number of seats now provided.  
 (b) Entire seating capacity of the school.
14. Condition of buildings:
  - (a) In good condition.
  - (b) Improperly heated and ventilated.
  - (c) Having insufficient grounds.
  - (d) Not properly drained.
  - (e) In bad condition.

16. Number of teachers:
  - White—Males; females; total white teachers.
  - Colored—Males; females; total colored teachers.
  - Grand total white and colored teachers.
17. (b) Qualifications of teachers:
  - Number educated at high schools or academies.
  - Number educated at normal schools.
  - Number educated at colleges or universities.
  - Number otherwise educated.
17. (c) Wages and time employed:
  - Average of teachers' salaries per month.
  - Average number of months employed in 1880.
18. Whole number of pupils in attendance during school year:
  - White—Males; females; total white.
  - Colored—Males; females; total colored.
  - Grand total white and colored children.
19. Number of boarding pupils in total above reported.
20. Average daily attendance of pupils during school year.
21. Estimated average age of pupils in attendance during last school year.
22. Is uniformity in text-books required?
- 23-25. Is instruction given in any of the following branches:
  - Botany; geology; physics; natural sciences generally; physiology; ancient languages; modern languages; bookkeeping; domestic economy; nursing, or studies preparing girls for housekeeping; music and drawing; political science; calisthenics, gymnastics, or military drill.
26. (a) Is there a regular course of study?
- (b) Number of years required to complete course.
- (c) Are diplomas or certificates given to graduates?
- (d) How many pupils completed course in 1880?
27. Are pupils prepared for college?
28. (a) Number of pupils prepared for college in 1880:
  - White—Males; females; total white.
  - Colored—Males; females; total colored.
  - Total white and colored prepared for college.
28. (b) Number of pupils admitted to college in 1880:
  - White—Males; females; total white.
  - Colored—Males; females; total colored.
  - Total white and colored admitted.
  - Colleges to which pupils were admitted.
29. Average number of hours of instruction—morning; afternoon.
30. (a) Date on which last school year began.
- (b) Date on which last school year ended.
31. Number of days on which school was taught in 1880.
32. Number of bound volumes in library.
33. (a) Has the school cabinets or collections for the study of—
  - Botany; geology; physics; miscellaneous.
33. (b) Has the school any of the following:
  - Astronomical apparatus; philosophical apparatus; scientific apparatus; miscellaneous apparatus.
35. Value of school buildings and grounds, etc., if permanently devoted to school purposes:
  - Value of library.
  - Value of cabinets, etc.
  - Value of illustrative apparatus.
  - Total buildings and belongings.
36. Indebtedness on properties reported above:
  - Mortgages.
  - Other indebtedness.
  - Total indebtedness.
37. Invested funds:
  - Endowments.
  - Prize funds (total amount).
  - All other funds.
  - Total amount of invested funds.
38. Sources of income last school year:
  - From invested funds.
  - From tuition fees.

# 662 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## 38. Sources of income last school year—Continued.

From appropriations of public funds.

From private sources.

Total income.

## 39. Expenditures last school year:

Salaries of instructors (total)

Rent of buildings.

Insurance.

Apparatus.

Library.

All other expenses.

Total expenditures.

NOTE.—If the school is conducted in connection with others (for instance, as a department of a high school or academy) report only that portion of funds received or expended which was applied to the uses of this particular school or department.

## SPECIAL SCHEDULE VI.—SCHOOLS FOR SPECIAL CLASSES.

Under this head should be reported all schools, public or private, which are devoted to the instruction of children beyond the reach of ordinary public or private schools, including schools connected with charitable, reformatory, penal, or other institutions of like character.

### A.—Location, accommodation, etc.

State; county.

Town, parish, or city—state which.

Designation or name of school.

For what particular class of children is the school intended?

Of what institution are its pupils inmates?

Is it open to pupils outside the institution above named?

Is it conducted independently of any institution?

Is it conducted under public or private auspices, or both? Give full particulars.

If the school is connected with another institution, give particulars.

If conducted under the auspices of a religious denomination, name the denomination.

Is it conducted in a building permanently devoted to its use; and if so, in whom is ownership vested?

Number of study rooms; recitation other than study rooms.

Number of seats provided for pupils.

Has due regard been given to the hygienic conditions of the school building and its surroundings? Indicate most obvious defects.

### B.—Teachers and pupils.

Name and postal address of teacher in charge.

Number, sex, position, qualification, and salaries of teachers:

	Sex. (a)	Educated at high school or academy— state which.	Years of study.	Educated at normal or other college— state which.	Years of study.	By what authority (through di- ploma or otherwise) entitled to teach.	Salary per month.	Number of months employed last year.
Principal .....								
Assistant (b) .....								

<sup>a</sup> Indicate sex of principal or assistant "M" (male); "F" (female). Indicate colored teachers, male or female, by an asterisk.

<sup>b</sup> Repeated eight times in printed schedule.

Different pupils in attendance during last school year:

White—Male; female; total.

Colored—Male; female; total.

Total number of different pupils, etc.

Number of above pupils who are inmates of the institution above named.

## HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 663

Pupils under 6 years of age in attendance during last school year, stated as accurately as possible:

White—Male; female; total.

Colored—Male; female; total.

Total number of pupils under 6 years, etc.

Pupils over 16 years of age in attendance during last school year, stated as accurately as possible:

White—Male; female; total.

Colored—Male; female; total.

Total number of pupils over 16 years, etc.

Indicate the nationality of pupils, and the number belonging to each.

### C.—*Instruction, libraries, apparatus, etc.*

Is instruction given in other than the elementary English branches? Give particulars.

Indicate the general character of the instruction regularly given, and the results of the same.

Are the pupils taught in classes?

To what extent is separate instruction given?

What attention is given to the physical development of pupils? Give particulars.

Give particulars as to special methods and appliances employed in the school, and the success attending their use.

If the school has a library, indicate its character.

Number of bound volumes.

If provided with illustrative charts or apparatus, give general description of same.

Number of school hours—morning; afternoon.

Dates on which school year 1880 began; ended.

Whole number of days on which school was taught during last school year.

### D.—*Finances.*

Value of buildings and belongings:

Estimated value of school buildings and grounds, if permanently devoted to school purposes.

Estimated value of library.

Estimated value of illustrative charts or apparatus.

Total value of buildings and belongings.

Increase in value of buildings and belongings, by actual expenditure, since census of 1870.

Incumbrances on property above reported:

Mortgages.

Other indebtedness.

Total incumbrances.

Permanent invested funds for use of above school.

Sources of income last school year:

From invested funds.

From bequests and charities to be devoted to current expenses.

From parents or guardians of pupils.

From grants of state funds.

From grants of other public moneys.

From all other sources.

Total.

Expenditures last school year:

Salaries of teachers (total).

Rent and repairs of buildings.

Maintenance of pupils.

All other expenses.

Total.

General remarks.

# 664 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## SPECIAL SCHEDULE VII.—INDUSTRIAL TRAINING SCHOOLS.

Including all schools, under whatever auspices conducted, intended for the industrial instruction of children.

### A.—Location, accommodations, etc.

State; county.

Town or city—state which.

Designation or name of school.

For what particular class of children is this school intended?

Is it connected with another institution?

Is it under religious auspices? If so, give particulars.

Is it under public or private direction?

Has it a board of directors or trustees, and in what manner is this board constituted?

Does it occupy a building held for its use?

Number of study rooms.

Number of pupils for whom accommodations are afforded.

Has due regard been given to the hygienic condition of the building and its surroundings? Indicate most obvious defects.

### B.—Teachers and pupils.

Inquiries as to teachers, school year 1880:

Sex. (a)	Branches taught.	Preparation for teaching.				Average salary per month.
		School.	Years in.	School.	Years in.	
(b)	(b)	(b)	(b)	(b)	(b)	(b)

a "M" for male, "F" for female, "C" for colored.

b Several blank lines are printed in schedule.

Name and postal address of head teacher.

Different pupils—school year 1880:

White—Male; female; total.

Colored—Male; female; total.

Average age of pupils.

Number of pupils who are maintained at public expense.

Number of pupils who are maintained at private expense.

Number of pupils now in attendance who have received instruction for three years; two years; one year; less than a year.

Are efforts made under direction of the school authorities for placing children in positions where they can pursue the trades or occupations for which they are prepared? Give particulars.

### C.—Instruction, libraries, appliances, etc.

For what trades or occupations is it the special purpose of this school to prepare children?

With reference to what trades and occupations were children instructed in the school year 1880?

How many children have been fitted for trades or occupations at this school since the census of 1870? Give name of trades and number fitted for each.

Is the class system used in giving instruction?

Are children instructed separately?

Give general statement as to special methods of training in use.

Remarks as to results of above methods.

What attention is given to the physical training of children?

If the school is provided with a model shop, give general description of the same.

Give general description of appliances for industrial training not included above.

To what extent is instruction given in the elementary English branches? Specify.

In other studies, not industrial? Specify.

If provided with illustrated charts or apparatus for use in studies other than industrial, give particulars.

Has the school a library? Of what character?

Number of bound volumes in same.

Name and address of custodian of library.  
 Number of school hours—morning; afternoon; evening.  
 Dates on which school year 1880 began; ended.  
 Whole number of days which school was taught in school year 1880.  
 Average annual cost of school per capita of pupils.

D.—*Inquiries as to finances.*

Property and belongings:  
     Value of buildings.  
     Value of lands.  
     Value of machinery, furniture, apparatus, etc.  
     Value of library.  
         Total value of property and belongings, exclusive of invested funds.  
 Increase in value of above, by actual expenditure, since census of 1870.  
 Sources of income.  
 Incumbrances and other indebtedness:  
     Mortgages.  
     Other indebtedness.  
         Total.  
 Amount of invested funds.  
 Income:  
     Public grants.  
     Private donations.  
     From invested funds.  
     Other sources.  
         Total.  
 Expenditure:  
     Salaries of teachers.  
     Rent and repairs of buildings.  
     Insurance.  
     Maintenance of pupils.  
     Expenses of model shop.  
     All other expenses.  
         Total.  
 General remarks.

SPECIAL SCHEDULE VIII.—BUSINESS COLLEGES.

A.—*Location, buildings, accommodations, etc.*

State; county; village or city.  
 Name of college.  
 When organized. If chartered, when?  
 Under which of the following auspices is the college conducted:  
     Of one or more of the teachers?  
     Of one or more citizens, not teachers?  
     Of a board of trustees, incorporated or not (*state which*); how constituted?  
 If aid is received from the state, on what condition is such aid granted?  
 Does the school occupy a building owned by its conductors?  
 Number of study rooms; recitation other than study rooms.  
 Total of suitable seats provided for pupils.

B.—*Teachers, pupils, etc.*

Name and postal address of president or principal.  
 Number, sex, departments, qualifications, and salaries of teachers:

	Sex. (a)	Educated at high school or academy— state which, and give name.	Years of study.	Educated at normal or other college— state which, and give name.	Years of study.	By what au- thority (through di- ploma or otherwise) entitled to teach.	Salary per month.	Number of months employed last year.
Principal .....								
Assistant (b) .....								

*a* Indicate sex of principal or assistant "M" (male); "F" (female). Indicate colored teachers, male or female, by an asterisk.  
*b* Repeated eight times in printed schedule.

666 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Different day students in attendance during last school year:

White—Male; female; total.

Colored—Male; female; total.

Total number of different day students, etc.

Different evening students in attendance during last school year:

White—Male; female; total.

Colored—Male; female; total.

Total number of different evening students, etc.

Grand total of different students, etc.

Number of above who are boarding pupils.

Average daily attendance of pupils during last school year; estimated average age of same.

Whole number of students last school year; whole number of graduates last school year.

Whole number of students since the institution was founded; whole number of graduates since the institution was founded.

*C.—Instruction, libraries, etc.*

Branches of study comprised in the regular course.

Give number of students in the following branches:

Political science, with reference to the reciprocal obligations of the Government and the citizen; name of text-book.

Commercial law; name of text-book.

Stenography or phonography.

Telegraphy.

French.

German.

Italian.

Spanish.

If special instruction is given in other than the studies above named, give particulars.

Number of bound volumes in library.

Increase of same since census of 1870.

Name and postal address of custodian.

Give full particulars as to character of illustrative apparatus, museums, collections, etc., belonging to the college.

Number of months in full course of study; weeks in scholastic year.

Number of months in full course of study, evening school.

Last school year began; ended.

Annual charge to each student for tuition.

Average price of board per week for boarding pupils.

Total average annual cost per pupil.

*D.—Invested funds, income, and expenditures.*

Value of buildings and belongings:

Total value of buildings and grounds if permanently devoted to college purposes.

Value of library.

Value of illustrative apparatus, museums, collections, etc.

Total value of buildings and belongings.

Incumbrances upon property and belongings:

Mortgages.

Other indebtedness.

Total.

Total increase in value of property and belongings since census of 1870.

Amount of permanent funds invested for benefit of college.

Income during last college year:

From tuition fees.

From invested funds.

From grants of public moneys.

From all other sources.

Total.

Expenditures during last college year:

For salaries of instructors.

For rent of premises.

For insurance.

For all other items.

Total.

General remarks.

## SPECIAL SCHEDULE IX.—SUPERIOR SCHOOLS.

This classification includes all institutions of the grade of universities or colleges, duly authorized to confer degrees, whether for one or both sexes.

I.—*Location, departments, etc.*

State; county.

Town, village, or city—state which.

Name of institution.

When founded; when opened.

Has the institution a special charter?

By what authority granted?

Date when obtained.

Add particulars as to amendments, giving dates.

To what, if any extent, is this institution under state or city supervision?

If not under public supervision, by what authority is it controlled?

If controlled, or chiefly supported, by any particular class or sect, secular or religious, give particulars.

In what manner is its board of trustees constituted?

Has it a board of visitors? If so, how are they chosen?

Has the institution any of the following separate departments? (a)—indicate which:

Art; architecture; agriculture; dentology; engineering; law; mining and mineralogy; military and naval warfare; mechanics; medicine and surgery; music; pharmacy; science, pure and applied; teaching; theology; therapeutics; veterinary medicine and surgery; other departments, if any.

Has the institution a boarding department for students?

Has it a preparatory department? Name and address of principal of same.

II.—*Inquiries as to instructors.*

Name and post-office address of president or dean of faculty.

Give number of instructors as follows: Permanent; temporary; occasional; non-resident; engaged in other occupations; instructing in more than one department; whole number of different instructors.

Average salaries of instructors.

Instructors in classical department; where educated, etc.:

	Name of preparatory school.	Years in.	Name of college.	Years in.	Name of professional school.	Years in.	Salary (per annum).
President.....							
Assistant.....							
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)

<sup>a</sup> Several blank lines are printed in schedule.

Do instructors hold office subject to given conditions? If so, what?

Is it required that instruction shall conform to a given standard? If so, what?

Endowed chairs—number; names of chairs, and particulars concerning same.

Unendowed chairs—number; names of chairs, and particulars concerning same.

Lectureships—number; upon what subjects, and particulars concerning same.

III.—*Inquiries as to course of study, qualifications for admission and graduation, etc.*

What length of time is included in the regular course of study? Number of terms in same; number of weeks in scholastic year; average number of hours of instruction per week. Last scholastic year began; ended. Date of commencement, 1880.

Requirements for admission to the classical course, and extent of same:

English branches; classics; modern languages.

Indicate other essential qualifications for admission, including age.

What advance has been made in requirements for admission since 1870?

<sup>a</sup> Detailed information respecting these separate departments is provided for in Schedule XI, relating to professional schools, and Schedules II and IV, relating to public and private high schools. Reports here given should relate only to the classical department.

## 668 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

If students are admitted to an advanced standing, state upon what conditions.

Mode of entrance examination.

Percentage of applicants admitted during last academic year—from public schools; from private schools. Percentage of applicants rejected during last academic year—from public schools; from private schools.

What are the obligatory studies in each year of the regular course, and what length of time is devoted to each of such studies in the class room daily?

First year—studies; hours. Second year—studies; hours. Third year—studies; hours. Fourth year—studies; hours.

What are the optional branches of study in each year of course, and what length of time is devoted to each of such studies in the class room daily?

First year—studies; hours. Second year—studies; hours. Third year—studies; hours. Fourth year—studies; hours.

To what extent is instruction given by means of lectures?

What efforts are made to enforce regular attendance upon recitations and lectures?

Give general statements as to methods of discipline.

If the institution has not a chair of didactics or pedagogics, and special instruction is given with reference to teaching, by occupants of other chairs, give particulars.

Are students expected to investigate subjects assigned them, and to report the results for examination, and how often?

Is experimental work required? If so, of what character, in connection with what studies, and to what extent?

If the institution has not a chair of political science, and instruction in that study is given by lectures or from text-books, with special reference to the government and institutions of the United States, the privileges and duties of citizenship, etc., give full particulars; name of text-book.

If attention is given to religious or moral instruction, or ethics, give particulars.

If instruction is given in drawing, state whether with or without the aid of models, casts, and examples for free-hand drawing.

If instruction is given in music, state to what extent (instrumental and vocal), and indicate methods of teaching and advantages afforded.

If instruction is given with the aid of suitable appliances in experimental chemistry, give particulars.

If instruction is given with suitable appliances in experimental physics, give particulars.

If instruction is given in philology or the languages, give particulars.

If special facilities are afforded for experimental training or for the pursuit of special studies, other than indicated above, give particulars.

What advance has been made in the requirements for graduation since 1870?

### IV.—Inquiries as to students and alumni.

Into how many classes are the students divided?

If the institution is open to both sexes, state when thus opened.

On what terms?

With what restrictions?

Comparative scholastic standing of sexes.

Number of different students in classical department pursuing studies in regular course, partial course, and post-graduate course, in scholastic year 1880:

Years.	White.			Colored.			Whole number.
	Male.	Female.	Total.	Male.	Female.	Total.	
First year, regular course.....							
Second year, regular course.....							
Third year, regular course.....							
Fourth year, regular course.....							
Partial course.....							
Post-graduates.....							
Grand total.....							

Number of students, each, from different states, territories, and foreign countries.

Whole number of different studies in classical department.

Number of students in classical department preparing to become teachers:

White—Male; female; total.

Colored—Male; female; total.

Whole number of students preparing to become teachers.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 669

State as nearly as possible the number and percentage of the entire alumni who have sought the following professions:

Law—No.; per cent. Medicine—No.; per cent.  
Science—No.; per cent. Teaching—No.; per cent.  
Theology—No.; per cent. Other than above.

Estimated average age of students when admitted; when graduated.

Number of alumni:

White—Male; female; total.  
Colored—Male; female; total.

Whole number of alumni of classical department.

Number of above who have been graduated since the census of 1870.

Number of students who have pursued a partial course, but have not been graduated, since the census of 1870.

Whole number of different students in attendance since census of 1870.

## V.—Inquiries as to examinations, prizes, honors, etc.

Are examinations written, oral, or experimental (give particulars), conducted at intervals during or at the end of the regular course of study; and to what extent is the student's graduation dependent upon the result of such examinations?

Are examinations (as above) conducted wholly by instructors connected with the institution? Give particulars.

Is there a competition for prizes? If so, give particulars, as follows:

For proficiency in what.	Manner of award.	What year of course.
(a)	(a)	(a)

<sup>a</sup> Several blank lines are printed in schedule.

Are honors awarded? If so, upon what conditions and of what character?

Give particulars as to public exhibitions intended to show the attainments of students.

## VI.—Inquiries as to fellowships, scholarships, and other aid to students.

Number of fellowships and conditions of award.

Scholarships—number of State scholarships, and conditions of award.

Number of free scholarships, and conditions of award.

Is manual or other labor provided for those who seek it, and to what extent does such labor afford opportunities for self-support?

Does such labor conflict with study?

What aid is provided for students other than that indicated above?

In the experience of this institution, what influence has the granting of pecuniary aid exerted upon the character of students receiving it?

## VII.—Inquiries as to degrees and diplomas.

What are the kinds of degrees conferred by this institution in course?

Upon special examination.

Honorary.

By what authority is the institution empowered to award the above degrees?

Number and kind of degrees conferred in 1880:

Students in course.

Partial course.

Upon examination.

Honorary.

Number and kind of degrees conferred since census of 1870:

Students in course.

Students in partial course.

Upon special examination.

Honorary.

## VIII.—Libraries, museums, apparatus, special appliances, etc.

General library—number of bound volumes.

Student's society libraries—number of bound volumes.

<sup>a</sup> Libraries, museums, etc., belonging to law, medical, theological or other professional schools, or belonging to a preparatory school connected with the institution should be reported in Schedule XI (Professional Schools), or Schedule II or III (High Schools), and not included here.

670 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Number of unbound pamphlets in above libraries.

Increase of bound volumes in above libraries from 1870 to 1880—number.

Name and postal address of librarian.

Has the institution a reading room for the use of students?

Number of reviews taken for use in library or reading room.

Number of other periodicals taken for use in library or reading room.

Has the institution a chemical laboratory? Character of the same.

Has it apparatus for illustrating physics? Character of same.

Has it a natural history museum? Character of the same.

Name and address of custodian, and name of museum.

Has it an art gallery? Character of same.

Name and address of custodian of art gallery.

If possessed by the institution, give particulars as to—

(a) Gymnasium.

(b) Model school.

(c) Model shop.

(d) Model farm.

(e) Cabinets, collections, apparatus, and other equipments, philosophical, scientific, and miscellaneous, not included above, with name and description of each.

*IX.—Inquiries as to value of property, endowments, income, expenditures, etc. (a)*

Is the institution endowed? If not, how is it supported?

Student's expenses:

Amount of matriculation fee.

Amount of graduation fee.

Amount per annum charged to each student for tuition.

Amount per annum charged to each student for room rent.

Average cost of board for each student per week.

Average necessary cost of text-books per annum.

Average total necessary expenses of each student per annum.

Property and belongings:

Value of buildings owned by the institution.

Value of lands.

Value of libraries.

Value of cabinets and museums.

Value of art collections.

Value of other collections.

Value of model shops and schools.

Value of apparatus.

Value of miscellaneous belongings.

Total value of property and belongings.

Endowments:

Chairs.

Fellowships.

Scholarships.

Prize funds.

Miscellaneous.

Total amount of endowments.

Total value of buildings, lands, and other property, including endowments.

Amount of incumbrances upon properties above named:

Mortgages.

Other indebtedness.

Total of incumbrances.

Increase in value of property since census of 1870:

Increase in value of buildings and lands by actual expenditure since 1870.

Increase in value of same by appreciation since 1870.

Increase in value of libraries since 1870.

Increase in value of cabinets and museums since 1870.

Increase in value of art collections since 1870.

Increase in value of other collections since 1870.

Total increase in value of cabinets, museums, collections, etc., since 1870.

---

*a* These inquiries refer only to the classical department. Endowments, income, expenditures, etc., relating to other departments, should be reported in Schedule XI (Professional Schools), or Schedule II or IV (High Schools).

Increase of endowments since 1870:

Chairs.  
Lectureships.  
Fellowships.  
Scholarships.  
Prize funds.  
Miscellaneous.

Total increase of endowments since 1870.

Grand total of increase in value of property and belongings since census of 1870.

Gifts from public and private sources since 1870:

Total endowments received from private sources since 1870.

Total endowments received from public sources since 1870.

Total value of other gifts for all purposes received from private sources since 1870.

Total value of other gifts for all purposes received from public sources since 1870.

Total of endowments and other gifts received since 1870.

Income (classical department only) for current year:

Grants of public moneys.

Total income from invested funds, including fellowships, scholarships, and prize funds.

Income from tuition.

From graduation fees and matriculation fees.

Private donations for current expenses.

Other sources (designate).

Total income for current year.

Expenditures (classical department) for current year:

For salaries of instructors (total).

For repairs of buildings.

For rent.

For insurance.

For recipients of fellowships and scholarships.

For prizes.

For miscellaneous purposes.

Total expenditures for current year.

General remarks.

#### SPECIAL SCHEDULE X.—TEACHERS' INSTITUTES.

Or other special schools for the instruction of teachers, conducted occasionally or at regular intervals, under the auspices of educational authorities, school officers, and instructors.

State of; County of.

Institutes conducted in 1880:

Name of place.	Duration.		Number of instructors.			Teachers in attendance.			Number of hours of session daily.		
	From—	Until—	Male.	Female.	Total.	Male.	Female.	Total.	Morning.	Afternoon.	Evening.
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

Name and address of presiding officer.

By what authority and under what auspices organized?

In what year first organized?

Summary of state law in relation to, if any.

To what classes of teachers are these institutes open, and upon what conditions?

If held statedly, at what times?

Are they held regularly in the same place?

Inquiries as to instruction:

Upon what subjects.	How given.	Total hours' time devoted to same.
(a)	(a)	(a)

a Several blank lines are printed in schedule.

## 672 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### Experimental training:

Were teachers instructed as to the best methods of conducting recitations in the following or other branches: Orthography, writing, geography, history, elements of political science, calisthenics, singing, reading and elocution, arithmetic, grammar, bookkeeping, the elementary sciences, drawing?

Were teachers instructed in the best methods for the schoolroom use of globes; blackboards; dictionaries, etc.; outline maps; charts; kindergarten materials; other helps?

Were the following questions subjects of discussion:

School discipline, including modes of punishment.

Methods for securing the cooperation of the directors and parents in the work of the teacher.

Obstacles to the progress of pupils, and how to overcome them.

Methods for cultivating the perceptive faculties of children: Memory; reason; attention; imagination.

Means adopted for rendering school surroundings attractive.

Systems of merits and demerits.

Other means for stimulating the ambition of students.

What special provisions were made for the entertainment of teachers?

What was the average cost of attendance to teachers?

### Expenses:

General expenses of the institute.

Expenses of teachers in attendance, paid by institute.

Expenses for instruction.

Other expenditures.

Total expenditures.

### Receipts:

State amounts and from what sources received.

Total receipts.

General remarks.

### SPECIAL SCHEDULE XI.—PROFESSIONAL SCHOOLS.

Under this classification are included independent schools, or departments of universities and colleges (*a*) devoted wholly or chiefly to the instruction of men and women in studies preparing them for any of the following or similar professions or callings: Agriculture, art, architecture, civil engineering, chemistry, dentology, designing or engraving, journalism, literature, law, mechanics, medicine, mining or mineralogy, military or naval warfare, music, natural history, oratory, pharmacy, philology, physics, surgery, teaching, theology, therapeutics, veterinary medicine or surgery, etc.

#### *I.—Inquiries as to location, name, buildings, supervision, etc.*

State; county; town or city (say which).

Full name of school.

For what profession or calling is the special purpose of this school to prepare students?

When founded; when organized?

If connected with any other institution of learning, name the institution, indicate the character of the connection, and state when such connection began.

Has this school a special charter; by what authority granted; date when obtained.

Add particulars as to amendments, giving dates.

To what, if any, extent is it under state or city supervision?

If not under public supervision, by what authority is it controlled?

If controlled, or chiefly supported, by any particular class or sect, secular or religious, give particulars.

In what manner is its board of trustees constituted?

Has it a board of visitors; if so, how are they chosen?

How many buildings does it possess? Uses of same.

Land held for the use of the school—number of acres.

Has it a boarding department for students?

Has it a preparatory department? Name and address of principal of same.

---

*a* Reports of universities and colleges, with the exception of professional and preparatory school departments, are provided for in schedule IX, under the head of "Superior Schools."

II.—*Inquiries as to instructors.*

No.	(b)	Position occupied.	Name and location of academy or high school where prepared.	Number of years in.	Name and location of college where prepared.	Number of years in.	Name and location of professional school where prepared.	Number of years in.	Salary per annum.
1	.....	President or dean. (c)							

*b* In this column mark female instructors thus, +; colored instructors thus, c.

*c* Several blank lines are printed in schedule, every other line being numbered from 1 to 10.

Name and post-office address of president or dean of faculty.

Give number of instructors as follows: Permanent; temporary; occasional; non-resident; engaged in other occupations; instructing in more than one branch.

Whole number of different instructors.

Average salaries of instructors.

Do instructors hold office subject to given conditions? If so, what?

Is it required that instruction shall conform to given standards? If so, what?

III.—*Inquiries as to course of study, qualifications for admission and graduation, etc.*

What length of time is included in the regular course of study; number of terms in same; number of weeks in scholastic year; average number of hours of instruction per week? Last scholastic year began; ended.

If students are received upon presentation of diplomas, indicate the character of diplomas entitling to admission.

Name each of the branches in which applicants for admission by examination are required to be qualified, and the extent of qualification required in each of same.

Indicate other essential qualifications for admission, including age.

What advance has been made in requirements for admission since 1870? For graduation?

If students are admitted to an advanced standing, state upon what conditions. (*a*)

What are the obligatory studies in each year of the regular course, and what length of time is devoted to each of such studies in the class room daily?

What are the optional branches of study in each year of the course, and what length of time is devoted to each study in the class room?

Is instruction given chiefly by lectures, or by means of recitations; and what success attends the two methods, comparatively?

Are special efforts made to enforce daily attendance upon lectures and recitations?

Number and names of endowed chairs; number and names of unendowed chairs.

Give general statement as to methods of discipline.

At what period of the year are the lectures of the regular course usually delivered?

What, if any, special studies are students encouraged to pursue in the intervals between the regular sessions; and what, if any, provisions are made with reference to the pursuit of such studies?

Is the discussion of questions in the lecture room encouraged?

Are students expected to investigate subjects assigned them, and to submit the results for criticism, and how often?

*a* If a certificate, stating that a candidate for admission to this school has had a certain amount of previous experience in professional work, secures for the holder admittance to an advanced standing, what is the test as to the value of such a certificate?

# 674 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Experimental work: (A) If in any of the following branches facilities are afforded for experimental work, give particulars. (B) Indicate instances in which such work is demanded as a requisite to the granting of a diploma. (C) What is the average number of hours for work devoted to same?

A.	B.	C.
Agriculture, including uses of manures, fertilizers, rotation of crops, drainage, etc. Anatomy, including dissection Arboriculture Architecture Art, including drawing, painting, modeling, designing, etc. Astronomy Botany Chemistry, including quantitative and qualitative analysis Civil engineering, including surveying—land and railroad Dentistry, mechanical and operative Didactics, or pedagogics Geology and mineralogy Gynecology History (theses, etc.) Horticulture Journalism Landscape gardening, including grading, etc. Laryngoscopy Law (theses, moot-court work, etc.) Literature (theses, etc.) Materia medica and therapeutics Mechanism (the designing, modeling, and construction of machinery, including steam engine and mill machinery, the manufacture of tools, etc.) Medicine, clinical Microscopy Mineralogy Music, vocal and instrumental Navigation Nursing Obstetrics, including labor cases Ontology Ophthalmology Oratory Otology Pathology, including post-mortem examination Pharmacy Philology Philosophy, mental and moral (theses, etc.) Physical diagnosis Physiology and hygiene Physics Political economy (theses, etc.) Political science (theses, etc.) Psychology (theses, etc.) Rhinoscopy Sanitary science Sociology (theses, etc.) Stock breeding Surgery, clinical Surgery, minor Surgery, operative, including the use of anesthetics Theology (theses, sermons, etc.) Topography, plain and colored, including topographical mapping Veterinary science Other than above		

If experimental work is required as above, in what manner is it directed, and what is the test as to proficiency in same?

If instruction is given relating to the Government and institutions of the United States, the privileges and obligations of citizenship, give particulars.

If attention is given to religious and moral instruction, or ethics, give particulars.

If instruction is given with reference to physical culture, including the voice, give particulars.

If instruction is given to those preparing to teach, with special reference to the physical development of school children, give particulars.

## IV.—Inquiries as to students and alumni.

Into how many classes are the students divided?

Different students in the first year of regular course pursuing studies for graduation in school year 1880; second; third; fourth. Total number of different students in regular course in 1880.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 675

Proportion of students, as above, devoting themselves wholly to their studies; engaged in other occupations, or for other reasons devoting only a part of their time to the studies of the course.

Number of above students who are females—first year; second year; third year; fourth year. Total females.

Number of above students who are colored—first year; second year; third year; fourth year. Total colored students.

Number of students pursuing a partial course in 1880.

Number of students pursuing post-graduate studies at the institution in 1880.

Total of different students in school year 1880.

Number of students each from different colleges and different states:

Name and location of college.	Since census of 1870.	Who have been graduated.	Who have pursued partial course.	In year 1880.	Who have been graduated.	Who have pursued partial course.	Names of States.	Students from each since 1870.	Students from each in 1880.
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

Total number of individuals who have been graduated or received diplomas since census of 1870.

Total number of individuals who have pursued a partial course since census of 1870.

Grand total of different students in attendance since census of 1870.

For what professions or occupations were students prepared, and what number were prepared for each of same, in 1880?

Number of students who have entered upon professional work in the different states, naming the states, since the census of 1870.

Proportion of graduates who have failed, for any reason, to enter upon the work of their profession.

Whole number of alumni.

## V.—Inquiries as to examinations, prizes, honors; etc.

Are examinations, written, oral, or experimental (give particulars), conducted at intervals during or at the end of the regular course of study; and is the student's graduation or diploma in any way dependent upon the result of such examinations?

What has been the experience of this institution as to the policy of making graduation or the granting of diplomas strictly dependent upon the merit shown in examinations?

Are examinations conducted wholly by instructors connected with the institution? Give particulars.

Is there competition for prizes? If so, give particulars and state in what way awarded.

Are honors awarded? If so, upon what conditions and of what character?

Are there public exhibitions to show the attainments or work of pupils?

## VI.—Inquiries as to scholarships and other aid to students.

Number of state scholarships; number of other free scholarships; upon what conditions and in what manner awarded.

Is manual or other labor required, or provided for those who desire it, and to what extent does such labor afford opportunities for self-support? Give particulars.

Does such labor conflict with study?

Is aid provided, other than that indicated above, for needy students? If so, give particulars.

In the experience of this institution what influence has the granting of pecuniary aid to students exerted upon the characters of those receiving it?

## VII.—Inquiries as to degrees and diplomas.

What are the kinds of degrees or diplomas awarded by this institution in course; upon special examination; honorary degrees.

By what authority is the institution empowered to award the above degrees and diplomas?

Do the diplomas of this institution give the holders legal title to teach, to practice law, to practice medicine, or to pursue other professional callings (say which) in the state or city (say which) where located?

Number of students examined for a degree in 1880; number passed. Name and number of each kind of degree conferred on young men in 1880, in course; upon special examination.

Name and number of each kind of degree conferred on young women in 1880, in course; upon special examination.

Number and kind of honorary degrees conferred in 1880.

Number and kind of degrees conferred in course since census of 1870; upon special examination, since census of 1870; honorary, since census of 1870.

VIII.—*Inquiries as to libraries, apparatus, museums, special appliances, etc.*)

Number of bound volumes in libraries; unbound.

Number of volumes in libraries relating to the subject of teaching.

Increase of bound volumes in libraries since the census of 1870.

Number of periodicals taken.

Number of above which are of an educational character.

Is there a reading room for the use of students?

Name and postal address of custodian of libraries.

Has the institution a chemical laboratory? Character of same.

Has it apparatus for illustrating physics? Character of same.

Has it a natural history museum? Name of museum.

Name and address of custodian.

Has it an art gallery? Name of art gallery.

Name and address of custodian.

Has it a gymnasium?

Has it a model farm?

Has it a model school?

Has it a model shop?

Are there cabinets, museums, and collections belonging to the institution other than those above named? If so, give name and description of each.

Apparatus. Give general statement as to same.

IX.—*Inquiries as to endowments, income, expenditures, etc.*

Is the institution endowed? If not, how is it supported?

Student's expenses:

(a) Amount of matriculation fee.

(b) Amount of graduation fee.

(c) Annual charge to each student for tuition.

(d) Annual charge to each student for room rent.

(e) Average cost of board for each student per week.

Average total necessary expenses of each student per annum.

Property and belongings:

(a) Value of buildings.

(b) Value of lands.

(c) Value of libraries.

(d) Value of cabinets, museums, collections, apparatus, etc.

Total value of property and belongings, exclusive of invested funds.

Increase in value of property and belongings, as above, by actual expenditure since the census of 1870.

Incumbrances on property above named:

Mortgages.

Other indebtedness.

Total incumbrances.

National land grants:

NOTE.—Inquiries under this head refer only to institutions receiving assistance in accordance with the terms of the act of Congress of July 2, 1862, denominated the "Agricultural college bill."

(a) Amount of scrip received by national grant.

(b) By whom held in trust.

(c) Proportion of same disposed of.

(d) In what manner disposed of.

(e) For what price sold.

(f) Aggregate fund resulting from sale.

(g) By whom held in trust.

(h) In what manner is this fund invested?

(i) Annual income from fund thus created.

Does the institution receive aid from the state? If so, in what manner is it afforded?

## Invested funds:

## (a) Endowments—

National land-grant fund (as reported above).

Miscellaneous (exclusive of *b*, *c*, *d*, and *e*, as below).

## (b) Endowments for chairs.

## (c) Endowments for fellowships.

## (d) Endowments for scholarships.

## (e) Endowments for prize funds.

Total of invested funds.

Total increase of invested funds since the census of 1870.

## Gifts from public and private sources since 1870:

## (a) Total endowments received from private sources since 1870.

## (b) Total endowments received from public sources since 1870.

## (c) Total value of other gifts received from private sources since 1870.

## (d) Total value of other gifts received from public sources since 1870.

Total of endowments and other gifts received since census of 1870.

## Income:

From chair endowments.

From fellowship endowments.

From scholarship endowments.

From national grant endowments.

From miscellaneous endowments.

From grants of state or other public moneys.

From private donations for current expenses.

From tuition fees.

From all other sources.

Total income.

## Expenditures:

For salaries of instructors (total).

For fellowships.

For scholarships.

For rent, repairs of buildings, etc.

For insurance.

For interest on indebtedness.

For prizes.

For experimental work.

For care of museums, libraries, etc.

For all other expenditures.

Total expenditures.

## General remarks.

## SPECIAL SCHEDULE XII.—EDUCATIONAL ASSOCIATIONS.

Including archaeological, art, historical, geographical, medical, and other established associations or societies, national, state, and local, meeting occasionally or periodically for the discussion of questions relating to the various arts and sciences, philosophy, religion, etc., with a view to the dissemination of knowledge.

A.—*Inquiries as to location, name, office, supervision, etc.*

State; county; town or city.

Full name of association.

General statement of purposes.

When founded?

By whom founded?

How governed?

Title of governing board.

How is this board constituted?

If this association occupies a special building, does it own or rent it?

If it occupies rented rooms, state how many are thus occupied.

Uses of various rooms occupied.

How many regular meetings were held in 1880?—weekly; monthly.

How many occasional meetings held during 1880?

B.—*Management, membership, purposes, etc.*

Name, title, and address of chief officer.

How, and for what length of time, chosen?

678 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

What are the conditions of membership?

Is the membership limited? If so, to what extent?

Members:

Number of active members in 1880—Male; female; total.

Honorary members.

Whole number of members in 1880.

Whole number of members since 1870.

Instruction:

Was systematic instruction given regularly under the auspices of this association during the year 1880?

If so, relating to what subjects?

If in classes, in how many and how often?

By lectures or text-books?

The number who have been thus instructed—

Since 1870—Male; female; total.

Year ending 1880—Male; female; total.

What is the cost of instruction given as above? To members; to others than members.

If lectures are regularly given under the auspices of the association, indicate the number given in the year 1880.

And the subjects treated.

What was the average attendance at each of the above lectures?

Admission fees—to members; to the public (if admitted).

If the association is possessed of art, historical, philosophical, scientific, or other collections or libraries, indicate their character and value.

Have you received, and will you kindly return answers to, Schedule XIII (museums and collections), sent herewith?

Publications:

If any publications are issued by this association, indicate their character.

State whether published weekly, monthly, yearly, or occasionally.

Number of copies published for gratuitous circulation.

Number of copies published for subscribers.

Total number of copies of all such publications issued annually.

If any special investigations or experiments have been conducted under the direction of this association, indicate the character and results of same:

In 1880.

Since 1870.

Are prizes offered by this association for the successful results of original investigation?

Give particulars.

Inquiries as to finances:

Income in 1880:

From members—fees and dues; donations.

Invested funds.

Amount of principal.

From publications.

From lectures.

Other sources.

Total income.

Expenditures in 1880:

Rent.

Care of rooms.

Salaries.

Collections.

Investigations and experiments.

Publications.

Lectures.

Prizes.

Total expenditures.

Value of buildings owned by the association.

Value of all other property owned by the association.

Incumbrances on property as above:

Mortgages; other indebtedness.

Total.

Increase in value of above property since 1870.

Will you kindly furnish the names of other associations of the character indicated at the head of this schedule in your immediate vicinity?

arks.

## SPECIAL SCHEDULE XIII.—MUSEUMS AND COLLECTIONS.

(Established museums and collections, public or accessible to the public upon payment of fees, devoted to the arts and sciences, natural history, etc., including those connected with professional or other schools or colleges, and those maintained and conducted as distinct institutions.)

A.—*Inquiries as to location, name, buildings, supervision, etc.*

State; county.  
 Town or city.  
 Full name of museum or collection.  
 Name of custodian.  
 Particulars as to ownership.  
 General statement of its purposes.  
 When founded?  
 By whom founded?  
 If connected with any other institution—  
   (a) Name the institution.  
   (b) Indicate the character of the connection.  
   (c) Give date when the connection began.  
 How governed?  
 Title of the governing board.  
 In what way is the governing board constituted?  
 To what, if any, extent is this museum or collection under public supervision?  
 How many buildings, if any, does it possess?  
 Uses of the same.  
 Land, if any, held for its use; number of acres; value of.

B.—*Management, departments, collections, membership, purposes, etc.*

Name, title, and post-office address of the chief officer.  
 By whom chosen or appointed?  
 Expert assistants or custodians—names; titles.  
 By whom chosen or appointed, and with what tests as to qualifications?  
 If this museum or collection is owned by an association or society, give full name of such association, or society, and name of its chief officer.  
 Have you received Schedule XII (relating to educational associations); and if so, will you have the kindness to answer the inquiries contained in same, or place the schedule in the hands of the proper person to render such service?  
 Whole number of active members—Male; female; total.  
 Members other than above.  
 Whole number of members.

C.—*Collections.*

## ART (SCULPTURE AND CARVINGS).

Articles.	No. marble, etc.	No. bronze.	No. metal.	No. ivory.	No. wood.	No. terra cotta.	No. plaster.	No. of ex- hibits.	Whole No. of exhib- its.
Ancient statuary .....									
Copies of statuary .....									
Ancient busts .....									
Copies of busts .....									
Modern statuary .....									
Copies of statuary .....									
Modern busts .....									
Copies of busts .....									
Relievs, ancient .....									
Copies of ancient .....									
Relievs, modern .....									
Copies of modern .....									
Values of above .....									

Total value of examples in sculpture and carving.  
 Remarks.

## ART (PAINTINGS, ENGRAVINGS, ETC.).

	Oil.	Water colors.	Draw- ings.	Etch- ings.	En- grav- ings— steel; copper.	Litho- graphs.	Chro- mo- litho- graphs.	Photo- graphs.	No. of exhib- its.
<i>Foreign artists—old masters.</i>									
Italian.....									
Copies Italian .....									
French.....									
Copies French .....									
German.....									
Copies German .....									
Dutch.....									
Copies Dutch .....									
Flemish.....									
Copies Flemish .....									
English.....									
Copies English .....									
<i>Modern.</i>									
Italian.....									
Copies Italian .....									
French.....									
Copies French.....									
German.....									
Copies German .....									
Dutch.....									
Copies Dutch .....									
Flemish.....									
Copies Flemish .....									
English.....									
Copies English .....									
<i>American artists.</i>									
Works dated previous to 1870.....									
Works from 1870 to 1880 .....									
Value of above.....									

Total value of examples in painting and engraving.

No. ideal; general; historical; religious.

Remarks.

## CERAMICS, GLASS, ETC.

Articles.	No. of articles.	Ancient.	Mediæval.	Modern.	No. of ex- hibits.
Ceramic ware .....					
Glassware .....					
Mosaics.....					
Value of above.....					

Total value of examples in ceramics and glass.

Remarks.

## ART (COINS, GEMS, JEWELRY, ETC.).

	Coins.	Medals and medallions.	Cam-eos.	Gems.	Intaglios.	Enam-els.	Miscella-neous jewelers' work.	No. of exhibits.
Ancient.....								
Copies ancient.....								
Mediæval.....								
Copies mediæval.....								
Modern.....								
Copies modern.....								
Greek.....								
Copies Greek.....								
Roman.....								
Copies Roman.....								
Saxon.....								
Copies Saxon.....								
English.....								
Copies English.....								
Value of above.....								

Total value of examples in coins, gems, jewelry, etc.

## ART (MISCELLANEOUS).

	MSS.		Books.	Armor and weapons.	Cos-tumes.	Laces.	Tapes-try.	Antiq-uities and relics.	Curiosi-ties.	No. of exhib-its.
	Illumi-nated.	Plain.								
Saxon.....										
Greek.....										
Roman.....										
Byzantine.....										
Egyptian.....										
East Indian.....										
Chinese.....										
Japanese.....										
North American Indian.....										
Value of above.....										

Total value of examples in miscellaneous list.

## NATURAL HISTORY.

Archæology and ethnology:

	Weapons.	Domestic utensils.	Articles of clothing.	Ornaments.	Models of houses and boats, etc.	Funereal.
North American Indians...						
South American Indians...						
Ancient Europe.....						
Asiatic.....						
African.....						
South Sea Islands.....						

Geology and Paleontology:

	Vertebrates.		Mollusca.		Other invertebrata.		Rocks.
	Species.	Specimens.	Species.	Specimens.	Species.	Specimens.	
Paleozoic.....							
Mesozoic.....							
Cenozoic.....							
Total.....							

# 682 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## Mineralogy:

No. of species; No. of specimens.

## Cryptogamous botany:

	No. of species.	No. of specimens.	No. of North American species.	No. of foreign species.
Algae.....				
Fungi.....				
Lichens.....				
Mosses.....				
Ferns and club mosses.....				

## Phenogamous botany:

No. of species; No. of specimens.

No. of species from North America; No. of foreign species.

No. of woods; No. of fruits.

## Vertebrates:

	No. of species.	No. of specimens.	Alcoholic.	Stuffed.	Skins.	Skulls and skeletons.	North American.	Foreign.	No. of types.
Mammal.....									
Birds.....									
Reptiles.....									
Batrachia.....									
Fishes.....									
Total.....									

## Insects (including arachnida and myriapoda):

No. of species pinned; in alcohol.

No. of specimens pinned; in alcohol.

No. of types.

No. of species in local collection; in general collection.

Mention special groups, important on account of completeness or historical interest.

## Mollusca (including polyzoa, brachiopoda, and tunicata):

No. of species dry; in alcohol.

No. of specimens dry; in alcohol.

No. of species of land shells; fresh water; marine.

No. of American species; of foreign species.

No. of types.

## Other invertebrates:

	No. of species dry.	No. of species in alcohol.	No. of specimens dry.	No. specimens in alcohol.	No. of types.	No. of American species.	No. of foreign species.
Crustacea.....							
Worms.....							
Echinoderms.....							
Cœlenterates.....							
Sponges and protozoa.....							

Total estimated value of examples in natural history.

## D.—Instruction in connection with this museum, etc.

If instruction is given, in what departments?

By lectures; by laboratory work?

No. of lectures per annum.

No. of hours devoted to laboratory work per annum.

No. of lecturers; No. of other instructors.

No. of students; tuition fee.  
 No. of scholarships; annual value of scholarships.  
 Requisites for admission.  
 What restriction is placed on the loan of specimens to specialists?  
 Is there a library connected with the museum? If so, give name and address of librarian.

*E.—Inquiries as to endowment, income, expenditure, etc.*

Amount of endowment.  
 If not endowed, how supported.  
 Membership fees, dues, etc.:  
     (a) Stockholders' shares.  
     (b) Life members' fee.  
     (c) Annual fee.  
     (d) Monthly fee.  
     (e) Membership dues per annum.  
 Total value of buildings and grounds.  
 Total value of collections.  
 Total value of other belongings.  
 Grand total of value of buildings, collections, and other belongings, exclusive of invested funds.  
 Increase in value of above since census of 1870.  
 Incumbrances on properties above named:  
     (a) Mortgages.  
     (b) Other indebtedness.  
     Total incumbrances.  
 Income:  
     From endowments.  
     From public funds.  
     From private donations for current expenses.  
     From membership fees and dues.  
     From all other sources.  
     Total income.  
 Expenditure:  
     Salaries.  
     Scholarships.  
     Rent, repairs, insurance, janitors' wages, etc.  
     All other expenses.  
     Total expenditure.  
 General remarks.

NOTE.—Should this collection contain departments not directly referred to in these inquiries, please report the same under this head.

COUNTY SUPERINTENDENT'S RETURN.

County of ....., State of .....

Whole number of public schools.

NOTE.—In graded schools each department in charge of a separate teacher should be counted as a school, e. g., a school building in which there are three departments, as above, should be counted, not as *one* school, but as *three* schools, etc.

Whole number of teachers employed in the above schools at any one time (for example, at close of school year) in 1880—Male; female; total.

Aggregate numbers of months for which schools were taught in the entire county during the school year 1880.

Average salary of teachers during same period.

.....,  
 County Superintendent.

## CENSUS OF 1890.

## SPECIAL SCHEDULE.—PUBLIC SCHOOLS.

(To officials who under the statutes are charged with the duty of making returns of public schools.)

Report of .....; State of .....

Number or name ..... (insert name of district, town, city, or other civil division for which the report is made); Post-office; County; State.

The attendance for the year ending ....., 1890, was:

	White.	Colored.	Aggregate.
Male pupils.....			
Female pupils.....			
Total.....			
Male instructors.....			
Female instructors.....			
Total.....			

## FINANCES.

Balance on hand beginning of year.

## Receipts:

Local tax.

Other public funds.

All other sources.

Total.

## Expenditures:

Salaries.

Repairs.

Improvements.

All other expenses.

Total.

Balance on hand end of year.

## Value of property:

Sites.

Buildings and furniture.

Library and apparatus.

Total.

## STATISTICS RELATING TO PUBLIC SCHOOLS.

Report of the public schools of ..... (insert number or name of district, town, city, or other civil division for which the report is made); Post-office; County; State.

The enrollment for the year ending ....., 1890, was:

	White.	Colored.	Aggregate.	Remarks.
Male pupils.....				
Female pupils.....				
Total.....				
Male instructors employed.....				
Female instructors employed.....				
Total.....				

Is any high-school department included above?

If any high-school department is included, please make the proper entries below.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 685

The high-school enrollment included above was:

	White.	Colored.	Aggregate.	Remarks.
Male pupils .....				
Female pupils .....				
Total.....				
Male instructors employed .....				
Female instructors employed.....				
Total.....				

## SPECIAL SCHEDULE.—PRIVATE AND PAROCHIAL SCHOOLS.

(Not including universities, colleges, and professional schools.)

Report of .....; State of .....

### EXPLANATIONS.

(Please read this carefully before making entries.)

It is the purpose of the census office to show impartially the share of the various agencies employed in the work of education.

The office is strictly pledged to privacy as regards the affairs of individuals, and particulars that are furnished will be grouped with those of like character. The facts given for any school, academy, or other institution will not be shown separately without the consent of those in control.

It is the popular custom to make two great divisions of schools, public and private. This office will treat separately parochial schools, which are the elementary schools supported by religious bodies with the dominant purpose of inculcating their special faiths. Parochial schools do not include temporary catechetical or confirmation classes where religious instruction only is given.

There are many schools whose relations are in part public and in part private.

For the purpose of the census office a school will be deemed public whose management is in the hands of public authorities, which is taught in a public schoolhouse by teachers selected by public officers and directly responsible to such officers.

In considerable portions of the country schools are maintained at public expense for certain months, after which the teachers are allowed the use of the public-school property with such compensation as they can secure from pupils. The added time in such cases is but an extension of the school supported by public funds.

In some sections schools are supported for a time by public funds in churches or other buildings not owned by the public, which buildings are left wholly in private control after the public-school fund is exhausted. For these schools, public part of the year and private part of the year, a special form of statement is given at the bottom of the schedule.

A school will be deemed private, even though largely supported by public funds, if its control is in the hands of individuals or of an association, chartered or otherwise, and the property is not owned or maintained by public authorities.

There are institutions, as in some southern states, which contract with local authorities to do the work of public schools for certain months in their own buildings, with their own teachers, and receive public funds. There are academies in New England that contract with public authorities to teach the pupils of high school standing. Like examples occur in many states. Such institutions will be deemed private schools.

The desired particulars are: The number of pupils by sex and color, the number of teachers by sex and color, and indications as to the work of each school that will facilitate its classification as public, private, or parochial; also a classification as elementary, secondary, or superior.

When the blanks are filled according to the facts, the statement will aid in determining the classification and the amount of money from public funds spent for education.

For many schools the facts called for by the census will be evident before the term of the year closes.

# 686 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

The principal of any private or parochial school can readily use this schedule by proper erasures and filling in of blanks.

Name of school; post-office; state.

Is the school private or parochial?

Is the school incorporated or unincorporated?

Under the control of the ..... (insert Catholic, Lutheran, Protestant Episcopal, or such other name as the case requires).

The attendance of the year ending ....., was:

	White.	Colored.	Aggregate.
Male pupils .....			
Female pupils .....			
Total .....			
Male instructors .....			
Female instructors .....			
Total .....			

Instruction has been given in the following studies (strike out or add to this list, according to the facts):

Religion.	Geography.	Algebra.	Latin.	.....
Reading.	Grammar.	.....	French.	.....
Writing.	U. S. History.	.....	German.	.....
Arithmetic.	.....	.....	.....	.....

There were ..... male students and ..... female students in advanced studies.

The school sessions for the year aggregate ..... weeks of ..... days each.

## RELATION OF THE SCHOOL TO THE PUBLIC FUNDS.

Did the school receive any aid from public funds during the year?

If public funds were received, please fill the blanks below:

The school received \$..... from public funds during the year on account of—

(a) Instructing children of school age ..... months.

(b) Instructing the pupils of high-school standing.

(c) As a grant.

The school was open as a public school ..... weeks, and as a private school ..... weeks.

## SPECIAL SCHEDULE.—COMMERCIAL SCHOOLS AND BUSINESS COLLEGES.

Report of .....; State of .....

Name of school; post-office; state.

Is the school incorporated? (If in connection with any university, college, or other like institution, please insert the facts below.)

Number of students in attendance for the year ending ....., was:

	White.	Colored.	Aggregate.
Male students .....			
Female students .....			
Total .....			
Male instructors .....			
Female instructors .....			
Total .....			

## RELATION TO PUBLIC FUNDS.

[Inquiries under this heading in special schedule relating to "Law schools" and the "Explanations" given in the same special schedule are common to this schedule and are not here reproduced.]

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 687

## SPECIAL SCHEDULE.—LAW SCHOOLS.

Report of .....; State of .....

### EXPLANATIONS.

(Please read this carefully before making entries.)

It is the purpose of the census office to show impartially the share of the various agencies employed in the work of education.

The office is strictly pledged to privacy as regards the affairs of individuals, and particulars that are furnished will be grouped with those of like character. The facts given for any institution will not be shown separately without the consent of those in control.

There are many institutions whose relations are in part public and in part private. For the purpose of the census office an institution will be deemed public whose management is in the hands of public authorities, which is taught in a public building by teachers selected by public officers and directly responsible to such officers.

On the other hand, an institution will be deemed private, even though largely supported by public funds, if its control is in the hands of individuals or of an association, chartered or otherwise, and the property is not owned or maintained by public authorities.

The desired particulars are: The number of students by sex and color, the number of instructors by sex and color, and indications as to the work of each institution that will facilitate its classification as public or private; also a classification as secondary or superior.

When the blanks are filled according to the facts, the statement will aid in determining the classification and the amount of money from public funds expended for education.

The returns should be made for the school year ending nearest to June 1, 1890, which is the close of the census year.

For many schools the facts called for by the census will be evident before the last term of the year closes.

The proper officer of the institution can readily use this schedule by proper erasures and filling in of blanks.

Name; post-office; state.

Is the school private or public?

Is the school incorporated?

This school is (if in connection with any university, college, or other like institution, please insert the facts).

The number of different persons in attendance for the year ending ....., was:

	White.	Colored.	Aggregate.
Male students .....			
Female students .....			
Total .....			
Male instructors .....			
Female instructors .....			
Total .....			

### RELATION TO PUBLIC FUNDS.

If a private institution, please state whether money was received within the year from public funds. (Insert yes or no.)

If such aid was received, please supply the facts below:

This institution received \$..... from..... (insert name of city, county, state, or other civil division) on account of .....

If a public institution, please insert facts below:

Receipts:

From public funds.

From all other sources.

Total.

## 688 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

If a public institution, please insert facts below—Continued.

## Expenditures:

- On account of salaries.
- On account of repairs.
- On account of improvements.
- All other expenses.
- Total.

## SPECIAL SCHEDULE.—MEDICAL COLLEGES.

Report of .....; State of .....

Name of school.

Character, whether allopathic, homeopathic, eclectic, dental, pharmaceutical, or veterinary.

Post-office; state.

Is the college private or public?

Is the college incorporated?

This college is..... (if in connection with any university, college, or other like institution, please insert the facts).

The number of different persons in attendance for the year ending ....., was:

	White.	Colored.	Aggregate.
Male students .....			
Female students .....			
Total .....			
Male instructors.....			
Female instructors.....			
Total .....			

(Make entries in blank below as facts require.)

Schools.	Students.			Instructors.			Remarks.
	Male.	Female.	Total.	Male.	Female.	Total.	
Preparatory .....							
Allopathic.....							
Homeopathic.....							
Eclectic.....							
Dental.....							
Pharmaceutical.....							
Veterinary .....							

Schools.	Colored students.			Colored instructors.			Remarks.
	Male.	Female.	Total.	Male.	Female.	Total.	
Preparatory .....							
Allopathic.....							
Homeopathic.....							
Eclectic.....							
Dental.....							
Pharmaceutical.....							
Veterinary .....							

## RELATION TO PUBLIC FUNDS.

[Inquiries under this heading in special schedule relating to "Law Schools" and the "Explanations" given in the same special schedule are common to this schedule and are not here reproduced.]

## SPECIAL SCHEDULE.—SCHOOLS OF PEDAGOGY.

Report of .....; State of .....

Name of school; post-office; state.

Is the school incorporated?

(If in connection with any university, college, or other like institution, please insert the facts.)

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 689

The attendance for the year ending ....., was:

	White.	Colored.	Aggregate.
Male students .....			
Female students .....			
Total .....			
Male instructors .....			
Female instructors .....			
Total .....			

(Make entries below as facts require.)

Departments.	Students.			Instructors.		
	Male.	Female.	Total.	Male.	Female.	Total.
Model high school.....						
Grammar school.....						
Intermediate .....						
Primary .....						
Kindergarten.....						
For training teachers.....						

Departments.	Colored students.			Colored instructors.		
	Male.	Female.	Total.	Male.	Female.	Total.
Model high school.....						
Grammar school.....						
Intermediate .....						
Primary .....						
Kindergarten .....						
For training teachers.....						

## RELATION TO PUBLIC FUNDS.

[Inquiries under this heading in special schedule relating to "Law Schools" and the "Explanations" given in the same special schedule are common to this schedule and are not here reproduced.]

## SPECIAL SCHEDULE.—SCHOOLS OF TECHNOLOGY.

Report of .....; State of .....

Name of school; post-office; state.

Is the school incorporated?

(If in connection with any university, college, or other like institution, please insert the facts below.)

The attendance for the year ending ....., was:

	White.	Colored.	Aggregate.
Male students .....			
Female students .....			
Total .....			
Male instructors .....			
Female instructors .....			
Total .....			

(Make additional entries below as facts require.)

## 690 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

The attendance for the year ending ....., was—Continued.

Departments.	Students.			Instructors.			Remarks.
	Male.	Female.	Total.	Male.	Female.	Total.	
Preparatory .....							
Collegiate .....							
[4 blank lines.]							

Departments.	Colored students.			Colored instructors.			Remarks.
	Male.	Female.	Total.	Male.	Female.	Total.	
Preparatory .....							
Collegiate .....							
[4 blank lines.]							

## RELATION TO PUBLIC FUNDS.

[Inquiries under this heading in special schedule relating to "Law Schools" and the "Explanations" given in the same special schedule are common to this schedule and are not here reproduced.]

## SPECIAL SCHEDULE.—SCHOOLS OF THEOLOGY.

Report of .....; State of .....  
 Name of school; post-office; state.  
 Is the school incorporated?  
 (If in connection with any university, college, or other like institution, please insert the facts below.)

	White.	Colored.	Aggregate.
Male students .....			
Female students .....			
Total .....			
Male instructors .....			
Female instructors .....			
Total .....			

## RELATION TO PUBLIC FUNDS.

Please state whether money was received within the year from public funds. (Insert yes or no.)

If such aid was received, please supply the facts below:

This school received \$ ..... from (insert name of city, county, state, or other civil division) on account of .....

General remarks.

[The "Explanations" given in the special schedule relating to "Law schools" are common to this schedule and are not here reproduced.]

## SPECIAL SCHEDULE.—UNIVERSITIES AND COLLEGES.

Report of .....; State of .....  
 Name; post-office; state.  
 Is the institution private or public?  
 Is the institution incorporated?  
 Under the control of the ..... (insert Catholic, Lutheran, Protestant Episcopal, state, city, or such other name as the case requires.)

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 691

The number of different persons in attendance for the year ending....., was:

	White.	Colored.	Aggregate.
Male students .....			
Female students.....			
Total .....			
Male instructors.....			
Female instructors.....			
Total .....			

(Make additional entries below as facts require.)

Departments.	Students.			Instructors.			Remarks. (Note Indian, Japanese, Chinese, or other special race.)
	Male.	Female.	Total.	Male.	Female.	Total.	
Preparatory .....							
Collegiate .....							
[4 blank lines.]							

Departments.	Colored students.			Colored instructors.			Remarks.
	Male.	Female.	Total.	Male.	Female.	Total.	
Preparatory .....							
Collegiate .....							
[4 blank lines.]							

## RELATION TO THE PUBLIC FUNDS.

[Inquiries under this heading in special schedule relating to "Law Schools" and the "Explanations" given in the same special schedule are common to this schedule and are not here reproduced.]

## INSURANCE.

[The special schedules used at the censuses of 1880 and 1890 called for a separate return from the company or association, society, or individual to which sent, and wherever the inquiries are tabular in form they have been so reproduced. The details relating to the financial statements of insurance companies are printed in the schedule in the ledger form of accounts, but this bookkeeping form is not here reproduced.]

## CENSUS OF 1880.

### FIRE AND MARINE INSURANCE—STOCK COMPANIES.

REPORT OF THE (INSURANCE COMPANY OR ASSOCIATION) OF .....,  
State of ....., to the Superintendent of the Tenth Census, for the year ending  
December 31, 1879.

Proper address of the company or association. (Give corporate name and place of  
its principal office.)

1. Date of charter or organization.
2. By whom chartered.
3. Is the charter perpetual or limited?
4. Character of organization—stock or stock and mutual. (a)

a Companies issuing both stock and mutual policies will report each class of business on the respective blanks.

5. Names of officers:
  - President.
  - Vice-president.
  - Vice-president.
  - Vice-president.
  - Secretary.
  - Assistant secretary.
  - Assistant secretary.
6. Does the company do an exclusively fire-insurance business, or marine and inland insurance business, or fire and marine and inland insurance business?
7. Does the company do a life-insurance business?
8. Does the company do a banking business?
9. Does the company confine its business to insuring particular kinds of property? If so, state kinds.
10. How are the profits of the company payable (in cash or certificates of profit or scrip)?
11. State the company's plan or plans of doing business, and the particular advantages derived by them over other systems.
12. Total premiums received from the organization to date.
13. Total losses paid from organization to date.
14. Total cash dividends declared since the company commenced business.
15. Total dividends declared payable in stock from organization.
16. Total amount of losses incurred during the year.
17. Total amount of the company's stock owned by the directors at par value.
18. Total amount loaned to stockholders who are not officers.
19. Number of officers of the company.
20. Number of directors of the company.
21. Number employed as bookkeepers and clerks at the principal office of the company.
22. Number employed as solicitors at the principal office of the company.
23. Number employed as surveyors at the principal office of the company.
24. Number employed otherwise at the principal office of the company.

## STATEMENT OF THE ASSETS OF THE COMPANY—DECEMBER 31, 1879.

## CAPITAL.

1. Whole amount of joint stock capital authorized.
2. Whole amount of guarantee fund authorized.
3. Whole amount of capital actually paid up in cash.
4. Amount paid up in subscription notes.
5. Outstanding scrip not ordered to be redeemed.

## ASSETS.

6. Cash market value of real estate owned by the company accepted as assets by state insurance departments.
7. Amount of incumbrances thereon.
8. Net amount carried out.
9. Loans on bonds and mortgages (duly recorded, and being first liens on the fee simple) upon which not more than one year's interest is due.
10. Loans on bonds and mortgages (first liens), upon which more than one year's interest is due, of which \$..... is in process of foreclosure.
11. Total amount loaned on bonds and mortgages (carried out).
12. Value of the lands mortgaged, exclusive of buildings and perishable property.
13. Value of the buildings mortgaged.
14. Total value of mortgaged premises (carried inside).
15. Amount of insurance on buildings mortgaged, and held as collateral security.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 693

16. Account of bonds of the United States, state, county, and municipal stocks and bonds, and all other stocks and bonds, absolutely owned by the company:

	Par value.	Market value.
17. United States bonds, specify amount of each series, viz: [7 blank lines.]		
18. Total United States bonds.....		
19. State bonds.....		
20. Town and county stocks and bonds.....		
21. Incorporated city stocks and bonds.....		
22. .... shares of bank stock.....		
23. .... shares of railroad and canal stocks.....		
24. .... shares of telegraph company stocks.....		
25. .... shares of life insurance company stocks.....		
26. .... shares of fire insurance company stocks.....		
27. .... shares of insurance company stocks of other companies not of the same character as this company.....		
28. All other stocks and bonds.....		
29. Scrip issued by fire insurance companies.....		
30. Scrip issued by marine and inland companies.....		
31. Total par and market value.....		

32. Carried out at market value.

33. Account of stocks, bonds, and all other securities (except mortgages) held by the company as security for cash actually loaned by the company:

	Par value.	Market value.	Amount loaned thereon.
34. United States bonds, specify amount of each issue, viz: [5 blank lines.]			
35. Total United States bonds.....			
36. State bonds.....			
37. Town and county stocks and bonds.....			
38. Incorporated city stocks and bonds.....			
39. .... shares of bank stocks.....			
40. .... shares of railroad and canal stocks.....			
41. .... shares of telegraph company stocks.....			
42. .... shares of gas company stocks.....			
43. .... shares of life insurance company stocks.....			
44. .... shares of fire insurance company stocks.....			
45. .... shares of insurance company stocks of other companies not of the same character as this company.....			
46. Scrip issued by fire insurance companies.....			
47. Scrip issued by marine and inland insurance companies.....			
48. All other loans secured by collaterals and accepted as assets by the state insurance departments.....			
49. Total amount of par and market value and amount loaned thereon.....			

50. Amount loaned (carried out).

51. Amount of all other loans made by the company, admissible as assets by state insurance departments, not included in the preceding items.

52. Amount of cash actually on hand in the office of the company.

53. Amount of cash deposited in savings banks, including estimated accrued interest.

54. Amount of cash deposited in bank to the credit of the company and not drawn against, exclusive of amount in savings banks.

55. Total amount of cash on hand.

56. Net amount of cash (after deducting commissions and all other charges) due the company for premiums unpaid and in course of collection.

57. Total amount of cash items.

58. Amount of interest due and not paid on loans on bond and mortgage.

59. Amount of interest accrued, but not due, on loans on bond and mortgage.

60. Amount of interest due on bonds and stocks and United States Treasury notes actually owned by the company not included in market value.

61. Amount of interest due on loans on collateral securities.

62. Amount of interest due on cash deposited in bank not including amount deposited in savings bank.

63. Amount of interest due from all other sources.

# 694 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

64. Total amount of interest due (carried out).
65. Gross fire premiums in course of collection not more than three months due.
66. Bills receivable not matured taken for fire risks.
67. Bill receivable not matured taken for marine risks.
68. Bills receivable not matured taken for inland risks.
69. Total bills receivable not matured (carried out).
70. Amount of stock or subscription notes on time not exceeding 12 months not yet due.
71. Amount due or to become due the company from other companies, viz:
72. On policies or contracts for reinsurance on account of losses already paid.
73. On account of outstanding losses not yet paid but included in statement of liabilities.
74. Total amount due from other companies (carried out).
75. Due the company from all other sources not previously specified, viz:
76. The gross amount of all the admissible assets of the company.
77. Amount which should be deducted from the above assets on account of bad and doubtful debts and securities, viz:
  - Item No.
  - Item No.
  - Item No.
  - Item No.
  - Item No.
- Total deductions (carried out).
78. Aggregate amount of all the admissible assets of the company at their actual value (carried out).
79. Items not admissible under state laws as assets, carried on company's books as good and collectible, stated at their actual value, viz:
  80. Loans on company's own stock.
  81. Premium notes more than three months due.
  82. Bills receivable other than those taken for premiums.
  83. Excess of mortgage loans over 50 per cent marginal value.
  84. Mortgage loans on unimproved property.
  85. Collateral loans in excess of 10 per cent margin.
  86. Salvages.
  87. Office furniture and fixtures.
  88. Agency supplies, stamps, etc.
  89. Leasehold property.
  90. Judgments.
  91. Wrecking apparatus.
  92. Other items.
  93. Total inadmissible assets.
94. Aggregate assets of the company as carried on its books.

## STATEMENT OF THE LIABILITIES OF THE COMPANY—DECEMBER 31, 1879.

	Fire risks.	Marine risks.	Inland transportation risks.
1. Gross amount of adjusted losses which are due, including interest thereon .....			
2. Gross amount of adjusted losses not yet due .....			
3. Gross amount of claimed, reported, or supposed losses in process of adjustment on which no action has been taken...			
4. Gross amount of losses claimed, which are disputed or resisted by the company, including interest and all costs and expenses accrued thereon .....			
5. Total gross amount of claims for losses.....			
6. Deduct reinsurance thereon.....			

7. Net amount of unpaid losses (carried out).

	Gross pre- miums.	Reinsur- ance fund.
8. Gross amount of premiums received and receivable upon all fire risks running one year or less from date of policy.....		
9. Unearned premiums being ..... per cent of same (a) .....		
10. Gross amount of premiums received and receivable upon all unexpired fire risks running more than one year from date of policy.....		
11. Unearned premiums pro rata on the same.....		
12. Gross amount of premiums (including both cash and bills) received and receivable upon all unexpired inland navigation risks.....		
13. Unearned premiums being ..... per cent of same .....		
14. Gross amount of premiums (cash and bills) received and receivable on all unexpired marine risks.....		
15. Unearned premiums being ..... per cent of same .....		

a If any proportion of the interest premiums on perpetual fire risks is included, state amount.

16. Total amount of unearned premiums, as computed above (carried out).
17. Amount reclaimable by the insured on perpetual fire-insurance policies, being ..... per cent of the premium or deposit received.
18. Net premium reserve and all other liabilities except capital under life insurance, or any other special department.
19. Unearned balances of bills and notes taken in advance for premiums on open marine policies or otherwise, returnable in settlement.
20. Unearned balances of bills and notes taken in advance for premiums on open inland policies or otherwise, returnable in settlement.
21. Total unearned balances of bills and notes (carried out).
22. Principal unpaid on scrip or certificates of profit which have been authorized or ordered to be redeemed.
23. Interest on scrip due and declared, remaining unpaid or uncalled for.
24. Amount due and to become due for borrowed money, including interest.
25. Amount of collaterals given to secure the same (carried inside).
26. Amount due and to become due for return premiums.
27. Amount of rents due and accrued.
28. Amount due for salaries.
29. Amount due for commissions and brokerage, and other charges due to agents and brokers on premiums paid or in course of collection.
30. Amount due for office, agencies, advertising, and incidental expenses.
31. Amount due for state taxes.
32. Amount due for National taxes.
33. Amount due for municipal taxes.
34. Amount due for other taxes and assessments.
35. Total amount due for taxes (carried out).
36. Amount due for borrowed money not included in item No. 24.
37. All other debts and demands against the company, absolute or contingent, due or to become due, not specified in the foregoing items.
38. Total amount of all liabilities, except capital stock, and net surplus or guarantee fund and scrip.
39. Joint stock capital paid up in cash.
40. Surplus beyond capital and all other liabilities.
41. Amount of such surplus which constitutes a permanent reserve fund, represented by scrip which by the terms of its issue can not be redeemed so as to diminish said reserve (carried inside).
42. Amount of such surplus which constitutes a permanent reserve safety fund, held for the payment of losses and expenses only (carried inside).
43. To be answered by companies doing an installment business:
44. Amount of unearned premiums represented by installment notes, being the whole amount of such notes.
45. Aggregate amount of all liabilities, including paid-up capital stock and net surplus.

## 696 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## STATEMENT OF THE INCOME FOR THE YEAR 1879.

	Fire risks.	Marine risks.	Inland transportation risks.
1. Gross cash actually received during the year for premiums without any deduction or abatement for brokerage, commissions, return premiums, or otherwise, including \$..... premiums of previous years.....			
2. Deduct only amount paid for reinsurance.....			
3. Deduct only amount paid for rebates allowed on premiums.....			
4. Deduct only amount paid for return premiums.....			
Total deductions .....			
5. Total net amount of cash actually received during the year for premiums (carried out).			
6. Bills and notes received during the year for premiums remaining unpaid (carried inside).			
7. Amount of cash actually received during the year for interest, viz:			
8. On bonds and mortgages.			
9. On stocks, bonds, and treasury notes absolutely owned by the company.			
10. On loans on collateral securities.			
11. On cash deposited in banks.			
12. From all other sources.			
13. Total amount actually received during the year for interest (carried out).			
14. Amount of cash actually received during the year for rents.			
15. Amount of cash received from all other sources, viz: [3 blank lines.]			
16. Total cash income received during the year.			
17. Amount received for calls on capital.			
18. Amount received for increased capital.			
19. Amount of deposit premiums, less ..... per cent received for perpetual fire risks during the year (carried inside).			
20. Aggregate amount of cash actually received during the year.			

## STATEMENT OF THE EXPENDITURES OF THE COMPANY FOR THE YEAR 1879.

	Fire risks.	Marine risks.	Inland transportation risks.
1. Gross amount actually paid for losses, including \$..... losses occurring in previous years.....			
2. Deduct all amounts actually received for salvages (whether on losses of the last or previous years) .....			
3. Deduct all amounts actually received for reinsurance in other companies.....			
4. Total deductions .....			
5. Net amount paid during the year for losses (carried out).			
6. Amount of cash dividends actually paid stockholders during the year.			
7. Amount of stockholders' dividend declared during the year (carried inside).			
8. Amount of scrip or certificates of profits redeemed in cash.			
9. Amount of interest paid to scrip holders during the year.			
10. Amount of interest paid on borrowed money.			
11. Amount of interest paid for, viz: Amount of interest paid for, viz: Amount of interest paid for, viz:			
12. Total amount of interest paid during the year.			
13. Amount paid during the year for commissions and brokerages, including agencies.			
14. Amount paid during the year for salaries, fees, and compensation to officers.			
15. Amount paid during the year for salaries, fees, and compensation to directors, attorneys, clerks, and all other employees of the company, excepting the sums mentioned in items Nos. 13 and 14.			
16. Amount paid during the year for state taxes, exclusive of those under item No. 18.			
17. Amount paid during the year for municipal taxes.			

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 697

18. Amount paid during the year for registry fees, license to agents, assessments for benevolent associations, and all other sums imposed by state or municipal governments, exclusive of taxes, fire departments, and fire patrols.
19. Amount paid during the year for national taxes.
20. Amount paid during the year for other taxes and assessments.
21. Total amount of taxes paid (carried out).
22. Amount paid during the year for the support of fire departments.
23. Amount paid during the year for the support of fire patrols.
24. Amount paid during the year for rents.
25. Amount paid during the year for agency expenses, exclusive of commissions.
26. Amount paid during the year for office expenses, excepting sums included in previous items.
27. Amount of all other expenditures during the year not included in the foregoing items, viz:  
[4 blank lines.]
28. Amount paid during the year for premium deposits returned to the insured on perpetual fire risks (carried inside).
29. Aggregate amount of actual expenditures during the year in cash.

## RECAPITULATION OF FIRE RISKS AND PREMIUMS.

Year written.	Term.	Amount covered.	Gross premiums charged.	Fraction unearned.	Premiums unearned.
1879.....	One year or less.			1/2	
1878.....				1/4	
1879.....	Two years....			3/4	
1877.....				1/6	
1878.....	Three years....			1/2	
1879.....				5/6	
1876.....				1/8	
1877.....	Four years....			3/8	
1878.....				5/8	
1879.....				7/8	
1875.....				1/10	
1876.....				3/10	
1877.....	Five years....			1/2	
1878.....				7/10	
1879.....				9/10	
1874.....				1/12	
1875.....				3/12	
1876.....	Six years....			5/12	
1877.....				7/12	
1878.....				9/12	
1879.....				11/12	
1873.....				1/14	
1874.....				3/14	
1875.....				5/14	
1876.....	Seven years....			1/2	
1877.....				9/14	
1878.....				11/14	
1879.....				13/14	
.....					
.....					
.....					
.....	Over seven years.				
.....					
.....					
.....					
Total .....					

## 698 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

REPORT OF THE (INSURANCE COMPANY OR ASSOCIATION) OF.....,  
 State of ....., to the Superintendent of the Tenth Census.—Ten years' business  
 from January 1, 1870 (or date of organization, if later), to December 31, 1879.  
 Proper address of the company or association. (Give corporate name and place of  
 its principal office.)

	Dec. 31, 1869.	Dec. 31, 1879.
Whole amount of guarantee fund .....		
Amount paid in cash .....		
Amount paid in subscription notes .....		
Outstanding scrip not ordered to be redeemed .....		
Actual value of real estate owned by the company, less all incum- brances thereon .....		
United States bonds absolutely owned by the company:		
Par value in 1869, .....		
; 1879, .....		
Market value for each year, carried out .....		
State, city, bank, and other stocks and bonds absolutely owned by the company:		
Par value, 1869, .....		
; 1879, .....		
Market value for each year, carried out .....		
Amount of loans secured by bond and mortgage:		
Par value, 1869, .....		
; 1879, .....		
Market value for each year, carried out .....		
Amount of loans secured by stocks and otherwise than by bond and mortgage:		
Par value, 1869, .....		
; 1879, .....		
Market value for each year, carried out .....		
Amount of cash on hand and in bank .....		
Amount of notes on hand received for premiums and in advance for premiums (bills receivable) .....		
Amount of all other assets of the company not included in above items and admissible under state laws .....		
Gross assets of the company .....		
Amount of assets not admissible under state laws, but carried on company's books as good and collectible .....		
Net amount of all unpaid fire losses .....		
Net amount of all unpaid marine losses .....		
Net amount of all unpaid inland losses .....		
Amount required to safely reinsure all outstanding fire risks, being ..... per cent of both cash premiums and premium notes received on all unexpired risks running one year or less, and pro rata for all periods more than one year (a) .....		
Amount required to safely reinsure all outstanding marine risks, being ..... per cent of the premiums received (cash and bills) on the same .....		
Amount required to safely reinsure all outstanding inland risks, being ..... per cent of the premiums received (cash and bills) on the same .....		
Net amount of reinsurance reserve, and other liabilities, except capi- tal, under life insurance or any other special department .....		
Amount of unpaid scrip ordered to be redeemed .....		
Gross amount of all liabilities of the company, not including guarantee fund and scrip .....		
Net assets .....		
Surplus .....		
Net amount of fire risks in force .....		
Amount of premiums thereon .....		
Net amount of marine risks in force .....		
Amount of premiums thereon .....		
Net amount of inland risks in force .....		
Amount of premiums thereon .....		

a If any proportion of the interest premiums on perpetual deposits is included, state amount.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 699

## STATEMENT OF THE ASSETS OF THE COMPANY ON DECEMBER 31 OF EACH YEAR FOR TEN YEARS.

	Whole amount of joint capital stock authorized.	Amount of joint stock capital actually paid up in cash Dec. 31.	Whole amount of guarantee fund authorized Dec. 31.	Amount of guarantee fund paid up in cash Dec. 31.	Amount of guarantee fund paid up in subscription notes Dec. 31.	Real estate owned by the company at its market value, less all incumbrances thereon Dec. 31.
1870 .....						
1871 .....						
1872 .....						
1873 .....						
1874 .....						
1875 .....						
1876 .....						
1877 .....						
1878 .....						
1879 .....						
Total .....						

## STATEMENT OF THE ASSETS, ETC.—Continued.

	Amount of United States bonds actually owned by the company Dec. 31.		Amount of state, city, bank, and other stocks and bonds absolutely owned by the company Dec. 31.		Amount of loans secured by bond and mortgage Dec. 31.			Amount of loans secured by stocks and otherwise than by bond and mortgage Dec. 31.		
	Par value.	Market value.	Par value.	Market value.	Par value.	Market value.	Amount loaned thereon.	Par value.	Market value.	Amount loaned thereon.
1870....										
1871....										
1872....										
1873....										
1874....										
1875....										
1876....										
1877....										
1878....										
1879....										
Total										

## STATEMENT OF THE ASSETS, ETC.—Continued.

	Cash on hand and in bank Dec. 31.	Amount of notes on hand received for premiums and in advance of premiums (bills receivable) Dec. 31.	Amount of all other available assets admissible under state law Dec. 31.	Gross amount of all the available assets admissible under state law Dec. 31.	Amount of assets not admissible under state law, but carried on company's books as good and collectible Dec. 31.	Aggregate assets of the company as carried on its books Dec. 31.	Amount of special reserve fund deposited with the insurance department of New York under the surplus law of 1874, Dec. 31 each year.	Amount of guarantee surplus fund, as provided by said law, Dec. 31 each year.
1870 .....								
1871 .....								
1872 .....								
1873 .....								
1874 .....								
1875 .....								
1876 .....								
1877 .....								
1878 .....								
1879 .....								
Total .....								

# 700 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## STATEMENT OF THE LIABILITIES OF THE COMPANY DECEMBER 31 IN EACH YEAR FOR TEN YEARS.

	Losses unpaid Dec. 31.				Reinsurance Dec. 31.		
	Net amount of all unpaid fire losses.	Net amount of all unpaid marine losses.	Net amount of all unpaid inland losses.	Total net amount of all unpaid losses.	Amount required to safely re-insure all outstanding fire risks, being 60 per cent of the premiums received on risks running one year and under, and pro rata for all periods more than one year. (a)	Amount required to safely re-insure all outstanding marine risks, being 100 per cent of all premiums (cash and bills) on same.	Amount required to safely re-insure all outstanding inland risks, being 100 per cent of all premiums (cash and bills) on same.
1870.....							
1871.....							
1872.....							
1873.....							
1874.....							
1875.....							
1876.....							
1877.....							
1878.....							
1879.....							
Total .....							

a If any proportion of the interest premiums on perpetual deposits is included, state amount.

## STATEMENT OF THE LIABILITIES, ETC.—Continued.

	Amount reclaimed by the insured on perpetual deposits, being ..... per cent of the deposits, Dec. 31.	Amount of unpaid scrip ordered to be redeemed, Dec. 31.	Amount of all other liabilities of the company, Dec. 31.	Gross amount of all liabilities of the company, not including capital and net surplus.	Net assets Dec. 31.
1870.....					
1871.....					
1872.....					
1873.....					
1874.....					
1875.....					
1876.....					
1877.....					
1878.....					
1879.....					
Total .....					

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 701

## BUSINESS OF THE COMPANY EACH YEAR FOR TEN YEARS.

	Fire risks written. (a)							
	Number of fire policies written or re-nued during the year. (a)	Gross amount of fire risks written or re-nued during the year. (a)	Amount of fire risks expired and terminated during the year.	Amount of fire risks re-insured during the year.	Amount of premiums charged on fire risks written during the year. (a)	Amount of premiums charged on fire risks expired and marked off as terminated during the year.	Amount of premiums charged on fire risks re-insured during the year.	Average rate of premiums charged on fire risks written during the year.
1870.....								
1871.....								
1872.....								
1873.....								
1874.....								
1875.....								
1876.....								
1877.....								
1878.....								
1879.....								
Total .....								

a Do not include perpetual business.

## BUSINESS OF THE COMPANY, ETC.—Continued.

	Marine risks written.							
	Number of marine policies written or re-nued during the year.	Gross amount of marine risks written or re-nued during the year.	Amount of marine risks expired and terminated during the year.	Amount of marine risks re-insured during the year.	Amount of premiums charged on marine risks written during the year.	Amount of premiums charged on marine risks expired and marked off as terminated during the year.	Amount of premiums charged on marine risks re-insured during the year.	Average rate of premiums charged on marine risks written during the year.
1870.....								
1871.....								
1872.....								
1873.....								
1874.....								
1875.....								
1876.....								
1877.....								
1878.....								
1879.....								
Total .....								

# 702 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## BUSINESS OF THE COMPANY, ETC.—Continued.

Inland transportation risks written.								
	Number of inland policies written or renewed during the year.	Gross amount of inland risks written or renewed during the year.	Amount of inland risks expired and terminated during the year.	Amount of inland risks re-insured during the year.	Amount of premiums charged on inland risks written during the year.	Amount of premiums charged on inland risks expired and marked off as terminated during the year.	Amount of premiums charged on inland risks re-insured during the year.	Average rate of premiums charged on inland risks written during the year.
1870.....								
1871.....								
1872.....								
1873.....								
1874.....								
1875.....								
1876.....								
1877.....								
1878.....								
1879.....								
Total .....								

## RECEIPTS AND INCOME OF THE COMPANY EACH YEAR FOR TEN YEARS.

	Receipts from fire business.							
	Gross amount of cash received for fire premiums during the year, not including deposit premiums on perpetual risks.	Amount paid for fire reinsurance during the year.	Amount of rebates allowed on fire premiums during the year.	Amount of fire premiums returned during the year.	Net amount of cash fire premiums received during the year.	Amount of notes received for fire premiums and in advance of premiums (bills receivable) during the year.	Gross amount of deposit premiums received during the year on perpetual fire risks.	Total amount of cash actually received during the year from fire business.
1870.....								
1871.....								
1872.....								
1873.....								
1874.....								
1875.....								
1876.....								
1877.....								
1878.....								
1879.....								
Total .....								

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 703

## RECEIPTS AND INCOME FOR TEN YEARS—Continued.

	Receipts from marine business.						
	Gross amount of cash received from marine premiums during the year.	Amount paid for marine re-insurance during the year.	Amount of rebates allowed on marine premiums during the year.	Amount of marine premiums returned during the year.	Net amount of cash marine premiums received during the year.	Amount of notes received for marine premiums and in advance of premiums (bills receivable) during the year.	Total amount of cash actually received during the year from marine business.
1870.....							
1871.....							
1872.....							
1873.....							
1874.....							
1875.....							
1876.....							
1877.....							
1878.....							
1879.....							
Total.....							

## RECEIPTS AND INCOME FOR TEN YEARS—Continued.

	Receipts from inland transportation business.							Total amount of notes received during the year for fire, marine, and inland premiums advanced or in advance of premiums (bills receivable).
	Gross amount of cash received from inland premiums during the year.	Amount paid for inland re-insurance during the year.	Amount of rebates allowed on inland premiums during the year.	Amount of inland premiums returned during the year.	Net amount of cash inland premiums received during the year.	Amount of notes received for inland premiums and in advance of premiums (bills receivable) during the year.	Total amount of cash actually received during the year from inland business.	
1870....								
1871....								
1872....								
1873....								
1874....								
1875....								
1876....								
1877....								
1878....								
1879....								
Total.								

## 704 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## RECEIPTS AND INCOME FOR TEN YEARS—Continued.

	Income from interest, dividends, rents, etc.					
	Interest received during the year on bonds and mortgages.	Interest received during the year on stocks and bonds and treasury notes owned by the company.	Interest received during the year on guarantee fund.	Interest and dividends received during the year from loans on collateral securities and from all other sources not included in previous items.	Gross amount received during the year for interest and dividends.	Amount received during the year for rents.
1870.....						
1871.....						
1872.....						
1873.....						
1874.....						
1875.....						
1876.....						
1877.....						
1878.....						
1879.....						
Total .....						

## RECEIPTS AND INCOME FOR TEN YEARS—Continued.

	Income from interest, dividends, rents, etc.—Continued.			Foreign companies.	Total amount of cash received during the year from all sources.	Amount added to assets by the increase in market value of stocks, bonds, and other investments absolutely owned by the company.
	Amount of receipts and income during the year not included in previous items.	Amount of cash received for calls on capital during the year.	Amount received for increased capital during the year.	Amount of cash actually received during the year from the home office.		
1870.....						
1871.....						
1872.....						
1873.....						
1874.....						
1875.....						
1876.....						
1877.....						
1878.....						
1879.....						
Total .....						

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 705

## EXPENDITURES OF THE COMPANY EACH YEAR FOR TEN YEARS.

	Fire losses.					Marine losses.				
	Number of fire losses during the year.	Gross amount paid for fire losses during the year. (a)	Amount received during the year for salvage on fire losses.	Amount received during the year for re-insurance in other companies.	Net amount paid for fire losses during the year.	Number of marine losses during the year.	Gross amount paid for marine losses during the year.	Amount received during the year for salvages on marine losses.	Amount received during year for reinsurance in other companies.	Net amount paid for marine losses during the year.
1870....										
1871....										
1872....										
1873....										
1874....										
1875....										
1876....										
1877....										
1878....										
1879....										
Total										

a Amount of losses paid on account of Chicago fire in 1871, \$.  
Amount of losses paid on account of Boston fire in 1872, \$.

## EXPENDITURES FOR TEN YEARS—Continued.

	Inland transportation losses.					Total aggregate amount of fire, marine, and inland losses paid in cash during the year.	Amount of cash expended during the year on account of life insurance.	Dividends, etc.	
	Number of inland losses during the year.	Gross amount paid for inland losses during the year.	Amount received during the year for salvages on inland losses.	Amount received during the year for reinsurance in other companies.	Net amount paid for inland losses during the year.			Amount of dividends declared during the year.	Amount of cash paid during the year for dividends.
1870....									
1871....									
1872....									
1873....									
1874....									
1875....									
1876....									
1877....									
1878....									
1879....									
Total.									

## 706 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## EXPENDITURES FOR TEN YEARS—Continued.

	Dividends, etc.—Continued.					Expenses.	
	Foreign companies.	Amount of cash paid during the year for script redeemed.	Amount of cash paid during the year for interest on script.	Amount of cash paid during the year for interest on guarantee fund.	Total amount of cash paid during the year for dividends and profits.	Amount paid during the year for salaries, fees, and compensation to officers.	Amount paid during the year for salaries, fees, and compensation to directors, attorneys, clerks, and all other employees of the company, not including agencies.
1870....							
1871....							
1872....							
1873....							
1874....							
1875....							
1876....							
1877....							
1878....							
1879....							

## EXPENDITURES FOR TEN YEARS—Continued.

	Expenses—Continued.						
	Amount of cash paid during the year for taxes.					Amount paid during the year for commissions and brokerage, including agencies.	Amount paid during the year for agency expenses, exclusive of commissions.
	State—exclusive of assessments for benevolent associations, fire departments, and fire patrols.	Municipal—exclusive of assessments for benevolent associations, fire departments, and fire patrols.	Amount paid for registry fees, licenses to agents, assessment for benevolent associations, and all other services imposed by state and municipal governments, exclusive of taxes, fire departments, and fire patrols.	National.	Total paid during the year for taxes, fees, etc.		
1870....							
1871....							
1872....							
1873....							
1874....							
1875....							
1876....							
1877....							
1878....							
1879....							
Total							

## EXPENDITURES FOR TEN YEARS—Continued.

	Expenses—Continued.				Gross amount of actual expenditures in cash during the year.	Amount of decrease in assets by the decline in market value of stocks, bonds, and other investments absolutely owned by the company.
	Amount paid during the year for support of fire departments.	Amount paid during the year for support of fire patrols.	Amount of all other sums paid during the year on account of expenses, including interest on borrowed money.	Total amount paid during the year for expenses. (a)		
1870.....						
1871.....						
1872.....						
1873.....						
1874.....						
1875.....						
1876.....						
1877.....						
1878.....						
1879.....						
Total .....						

<sup>a</sup> Estimated proportion of expenses chargeable to fire business, \$.....

Estimated proportion of expenses chargeable to marine and inland business, \$.....

## STATEMENT OF PERPETUAL BUSINESS FOR TEN YEARS, 1870 TO 1879, INCLUSIVE.

(Companies not doing perpetual business for the entire ten years will give figures for the years they did write such risks.)

	Number of perpetual policies written during the year.	Number of perpetual policies marked off as canceled during the year.	Amount of perpetual risks written during the year.	Average rate.	Amount of perpetual risks marked off as canceled during the year.	Amount of perpetual deposits received during the year.	Amount of interest premiums for the year, it being 6 per cent of the amount of deposits outstanding Dec. 31 of the previous year.	Number of perpetual losses during the year.	Amount of perpetual losses paid during the year.	Amount of deposits returned for risks marked off as canceled during the year.	Amount of interest on losses paid to tenants for life.
1870....											
1871....											
1872....											
1873....											
1874....											
1875....											
1876....											
1877....											
1878....											
1879....											
Total											

December 31, 1869.

Number of perpetual policies in force.  
Amount of perpetual risks in force.  
Amount of premium deposits thereon.  
Net amount of interest premiums, being 6 per cent of the premium deposits.  
Amount of unpaid losses (perpetual).

December 31, 1879.

Number of perpetual policies in force.  
Amount of perpetual risks in force.  
Amount of premium deposits thereon.  
Net amount of interest premiums, being 6 per cent of the premium deposits.  
Amount of unpaid losses (perpetual).

What are the particular advantages to both insurer and insured derived from this mode of insuring?

# 700 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## STATEMENT OF THE LIABILITIES OF THE COMPANY DECEMBER 31 IN EACH YEAR FOR TEN YEARS.

	Losses unpaid Dec. 31.				Reinsurance Dec. 31.		
	Net amount of all unpaid fire losses.	Net amount of all unpaid marine losses.	Net amount of all unpaid inland losses.	Total net amount of all unpaid losses.	Amount required to safely re-insure all outstanding fire risks, being 50 per cent of the premiums received on risks running one year and under, and pro rata for all periods more than one year. (a)	Amount required to safely re-insure all outstanding marine risks, being 100 per cent of all premiums (cash and bills) on same.	Amount required to safely re-insure all outstanding inland risks, being 100 per cent of all premiums (cash and bills) on same.
1870.....							
1871.....							
1872.....							
1873.....							
1874.....							
1875.....							
1876.....							
1877.....							
1878.....							
1879.....							
Total .....							

a If any proportion of the interest premiums on perpetual deposits is included, state amount.

## STATEMENT OF THE LIABILITIES, ETC.—Continued.

	Amount reclaimed by the insured on perpetual deposits, being ..... per cent of the deposits, Dec. 31.	Amount of unpaid scrip ordered to be redeemed, Dec. 31.	Amount of all other liabilities of the company, Dec. 31.	Gross amount of all liabilities of the company, not including capital and net surplus.	Net assets Dec. 31.
1870.....					
1871.....					
1872.....					
1873.....					
1874.....					
1875.....					
1876.....					
1877.....					
1878.....					
1879.....					
Total .....					

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 709

## STATEMENT OF PARTICIPATING BUSINESS FOR TEN YEARS, 1870 TO 1879, INCLUSIVE.

(Companies not doing participating business the entire ten years will give figures for the years they did write such risks.)

	Number of policies written or renewed during the year.	Number of policies expired or terminated during the year.	Amount of risks written or renewed during the year.	Amount of risks expired or terminated during the year.	Amount of premiums received on risks expired or terminated during the year.	Amount of risks reinsured during the year.	Amount of gross premiums received during the year.	Amount paid for reinsurance during the year.
1870.....								
1871.....								
1872.....								
1873.....								
1874.....								
1875.....								
1876.....								
1877.....								
1878.....								
1879.....								
Total .....								

December 31, 1869.

Number of participating policies in force.	Amount of participating "Special reserve fund."
Amount of participating risks written in force.	Average rate per cent of profits declared on out-
Amount of premiums thereon.	standing business.
Amount of scrip outstanding and deliverable.	

## STATEMENT OF PARTICIPATING BUSINESS FOR TEN YEARS, ETC.—Continued.

(Companies not doing participating business the entire ten years will give figures for the years they did write such risks.)

	Number of losses during the year.	Amount paid for losses during the year.	Amount of earned participating premiums on which dividends were declared during the year.	Amount of dividends paid in scrip (amount of scrip declared) during the year.	Amount of dividends carried to participating "Special reserve fund" during the year.	Amount of scrip called in and canceled without being liquidated, and amount forfeited during the year.	Amount of scrip redeemed during the year.	Amount of interest paid on scrip during the year.
1870.....								
1871.....								
1872.....								
1873.....								
1874.....								
1875.....								
1876.....								
1877.....								
1878.....								
1879.....								
Total .....								

December 31, 1879:

Number of participating policies in force.	Amount of participating "Special reserve fund."
Amount of participating risks written in force.	Average rate per cent of profits declared on out-
Amount of premiums thereon.	standing business.
Amount of scrip outstanding and deliverable.	

Limit of scrip accumulation before any redemption?

What are the particular advantages to both insurer and insured derived from this mode of insuring?  
What is the average additional rate charged by the company on participating over nonparticipating policies?

## 710 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

REPORT OF THE (INSURANCE COMPANY OR ASSOCIATION) OF .....,  
State of ....., to the Superintendent of the Tenth Census, showing the business  
done in each State for ten years, 1870 to 1879.

(Companies not doing business in any state for the entire ten years will give the  
figures for such years as they did do business therein.)

Proper address of the company or association.

(Give corporate name and place of its principal office.)

STATEMENT OF THE FIRE, MARINE, AND INLAND TRANSPORTATION INSURANCE BUSI-  
NESS IN THE STATE OF ALABAMA (a) FOR TEN YEARS, 1870 TO 1879, INCLUSIVE.

(Companies will include all business, whether done through established agencies, brokers, or  
otherwise.)

The answers to all the questions will be confidential as they relate to individual companies.

	Fire business.			Marine business.			Inland transportation business.		
	Amount of fire risks written during the year.	Amount of fire premi- ums received during the year.	Amount of fire losses paid dur- ing the year.	Amount of marine risks written during the year.	Amount of marine premi- ums received during the year.	Amount of marine losses paid dur- ing the year.	Amount of inland risks written during the year.	Amount of inland premi- ums received during the year.	Amount of inland losses paid dur- ing the year.
1870.....									
1871.....									
1872.....									
1873.....									
1874.....									
1875.....									
1876.....									
1877.....									
1878.....									
1879.....									
Total ..									

a The printed schedule contains a similar form for each state and territory, arranged alphabetically.

REPORT OF THE (INSURANCE COMPANY OR ASSOCIATION) OF .....,  
State of ....., to the Superintendent of the Tenth Census.

### SPECIAL FIRE HAZARDS AND CLASSIFIED MARINE RISKS.

(Information voluntarily given by companies.)

This schedule is forwarded to the companies with the request that the answers to the  
questions be as full and complete as possible.

As many hold their individual experience on certain classes of risks as private matter,  
the undersigned would state that the figures are accepted in confidence; that the  
results will be published in aggregates only, and that the reports of the companies  
on Special Hazards will not be inspected by any one, either at the present or any  
future time, excepting the Superintendent of the Census and the special agent in  
charge, and returned to the company if they so desire.

To establish a data by which the cost of insuring any class of fire or marine risks can  
be determined, the combined experience of all companies on such risks is neces-  
sary. The business of any one company, however extensive, can not furnish an  
average sufficient to be relied upon for that purpose.

With that object in view, an effort will be made, through the census, to ascertain  
the following facts touching the leading manufactures of the country, viz:

The number of each kind in each state.

The total value of each kind in each state.

The average yearly insurance carried on each kind.

The number of each kind destroyed or damaged by fire within a given period.

The total amount of damages on each kind caused by fire.

The total amount of insurance paid on losses on each kind caused by fire.

The value of this information, added to that asked for in the following schedule, will  
be self-evident to every practical underwriter.

As the figures are to be given and received in confidence, it is to be hoped that the  
companies will cheerfully contribute their experience, and thus aid in forming a  
reliable chart that will be instructive to the assured and helpful to the underwriter  
in establishing and maintaining adequate and equitable rates.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 711

## EXPERIENCE ON SPECIAL HAZARDS.

	Cotton mills. (a)					
	Number of risks written during each year.	Amount of risks written during each year.	Amount of premiums received during each year.		Number of losses during each year.	Amount of losses paid during each year.
1870.....		\$	\$	cts.		\$ cts.
1871.....						
1872.....						
1873.....						
1874.....						
1875.....						
1876.....						
1877.....						
1878.....						
1879.....						
Total .....						

a The printed schedule contains a similar form for woolen mills; flouring mills; boot and shoe manufactories; paper mills; churches; iron-working establishments (working the metal only); hardware manufactories; wood-working establishments (not including planing mills and sawmills); establishments working iron and wood in conjunction; breweries and malt houses; lumber yards; tanneries (cold liquor and steam); india-rubber and gutta-percha works; bleacheries, dye, and print works; planing mills; sawmills; hotels and contents; printing, lithographing and bookbinding; colleges, schoolhouses, seminaries, asylums, and hospitals; jails and prisons; wholesale drug stocks; tobacco and cigar factories; city and county public buildings (state-houses, court-houses, municipal buildings); railroad risks (depot, freight houses, machine shops, rolling stock); coal breakers.

Companies are requested to give their figures for the years of the last decade during which they issued policies on the above kinds of property.

The above figures will be held strictly confidential, and the results given only in aggregates.

The inspection of the reports of companies on special hazards by anyone beyond the census office will not be allowed at this or any future time.

NOTE.—Short risks and time risks should be calculated on basis of yearly insurance, so as to give annual rates.

## DEPOSITS MADE IN THE DIFFERENT STATES AND COUNTRIES AND HELD FOR THE PROTECTION OF POLICY HOLDERS.

Names of states and countries.	Amounts deposited.
(a)	(a)

a Several blank lines are printed in schedule.

## CLASSIFIED EXPERIENCE ON MARINE BUSINESS.

	On vessel. (a)											
	Sums written during each year.	Sums marked off each year as terminated.	Sums outstanding December 31 of each year.	Amount of premiums written each year.	Amount of return premiums each year.	Net premiums received each year.	Amount of premiums marked off as earned each year.	Amount of premiums outstanding December 31 of each year.	Amount of losses paid each year.			
1870....				\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$	cts.	
1871....												
1872....												
1873....												
1874....												
1875....												
1876....												
1877....												
1878....												
1879....												
Total												

a The printed schedule contains a similar form for freight, cargo, whaling risks, and collision risks, special policies covering losses occasioned by collisions with other vessels for which the insured vessel may be liable.

Companies are requested to give their figures for the years of the last decade during which they issued marine or inland policies.

The above figures will be held strictly confidential, and the results given only in aggregates.

The inspection of the reports of companies by anyone beyond the census office will not be allowed at this or any future time.

**FIRE AND MARINE INSURANCE—MUTUAL COMPANIES.**

REPORT OF THE (INSURANCE COMPANY OR ASSOCIATION) OF .....,  
State of ....., to the Superintendent of the Tenth Census for the year ending  
December 31, 1879.

Proper address of the company or association.

(Give corporate name and place of its principal office.)

[Inquiries numbered 1 to 11 (preliminary inquiries, preceding "Assets") in special schedule "Fire and Marine Insurance—Stock," for year ending December 31, 1879, are common to this schedule and are not here reproduced.]

Total cash premiums and assessments received from the organization to date.

Total losses paid from organization to date.

Total cash dividends declared since the company commenced business.

Total amount of losses incurred during the year.

Percentage of profits or surplus returned during the year 1879.

Average percentage of profits or surplus returned since organization to December 31, 1879.

[Inquiries Nos. 19-24 (preliminary inquiries, preceding "Assets") in special schedule "Fire and Marine Insurance—Stock," for year ending December 31, 1879, are common to this schedule and are not here reproduced.]

**STATEMENT OF THE ASSETS OF THE COMPANY DECEMBER 31, 1879.**

**GUARANTY FUND.**

Whole amount of guaranty fund.

Amount of guaranty fund paid up in cash.

Amount of guaranty fund paid up in subscription notes.

**ASSETS.**

[Inquiries numbered 6 to 57 and 71 to 74, under "Assets," in special schedule "Fire and Marine Insurance—Stock," for year ending December 31, 1879, are common to this schedule and are not here reproduced.]

Amount due the company on which judgment has been obtained.

Amount of notes on hand and not matured, received for premiums and in advance for premiums (bills receivable) for fire risks.

Amount of notes on hand and not matured, received for premiums and in advance for premiums (bills receivable) for marine risks.

Amount of notes on hand and not matured, received for premiums and in advance for premiums (bills receivable) for inland risks.

Total bills receivable not matured (carried out).

Amount of promissory notes on hand received for fire risks, being ..... per cent of amount insured (including amount of notes given for membership fee).

Amount due from unpaid premiums, not including "net amount of cash (after deducting commissions and all other charges) due the company for premiums unpaid and in course of collection."

Amount of premium notes, being in number ..... and ..... per cent on amount insured, held by the company on policies issued and still in force, which are liable for assessment for payment of future claims (carried inside).

Amount of assessment thereon from the date thereof (carried inside).

Net amount of said premium notes (carried out).

Net amount of unpaid assessment on calls, on premium or deposit notes held by the company which are due and collectible, deducting probable cost of collecting the same, and all bad and doubtful assessments.

Amount of assessments due on perpetual policies secured by lien on property insured.

Amount of interest due and not paid, and accrued but not due, viz:

On loans on bond and mortgage.

On United States, state, municipal, and other bonds and stocks absolutely owned by the company not included in market value.

On amount loaned on collateral securities.

On cash deposited in bank, not including amount deposited in savings banks.

Amount of interest due the company from all other sources.

Total interest due the company (carried out).

Amount of rents due the company.

Amount due the company from all other sources not specified above.

Amount of stocks or deposit notes, exclusive of premium notes, held as part of the capital of the company.

## HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 713

Amount of all other assets and property owned by the company and not included in any of the preceding items at the actual cash value thereof, viz:

[4 blank lines.]

The gross amount of all the admissible assets of the company.

Amount which should be deducted from the above assets on account of bad and doubtful debts and securities consists of the following deductions from the above items, viz:

Item No.  
Item No.  
Item No.  
Item No.  
Item No.

Total deductions (carried out).

Aggregate amount of all the admissible assets of the company at their actual value (carried out).

[Inquiries numbered 79 and 81 to 94, under "Assets," in special schedule "Fire and Marine Insurance—Stock," for year ending December 31, 1879, are common to this schedule and are not here reproduced.]

### STATEMENT OF THE LIABILITIES OF THE COMPANY DECEMBER 31, 1879.

[Inquiries numbered 1 to 7, 24, and 25, under "Liabilities," in special schedule "Fire and Marine Insurance—Stock," for year ending December 31, 1879, are common to this schedule and are not here reproduced.]

Amount of interest due to scrip holders remaining unpaid, including interest declared but not yet due.

Amount of unpaid scrip ordered to be redeemed.

Amount reclaimable by the insured on perpetual insurance policies, being ..... per cent of the premium or deposit thereon.

	Gross premiums.	Reinsur- ance fund.
Gross amount of premiums (including both cash and notes) received and receivable upon fire risks running one year or less from date of policy.....		
Unearned premiums, being ..... per cent of same (a).....		
Gross amount of premiums (including both cash and notes) received and receivable upon fire risks running more than one year from date of policy.....		
Unearned premiums pro rata on the same.....		
Gross amount of premiums (including both cash and notes) received and receivable upon all unexpired inland risks.....		
Unearned premiums, being ..... per cent of same.....		
Gross amount of premiums (including both cash and notes) received and receivable upon all unexpired marine risks.....		
Unearned premiums, being ..... per cent of same.....		

a If any proportion of the interest premiums on perpetual deposits is included, state amount.

Total amount of unearned premiums, as computed above (carried out).

Amount due or to become due to other companies for premiums on reinsurance policies or contracts.

Amount of return premiums due or to become due on canceled or surrendered policies.

Amount due or to become due for cash premiums returnable as profits or surplus on terminated policies.

Amount of rents due and accrued.

Amount due for salaries.

Amount due for commissions and brokerage, and other charges due or to become due to agents and brokers on premiums paid or in course of collection.

[Inquiries numbered 30 to 35, under "Liabilities," in special schedule "Fire and Marine Insurance—Stock," for year ending December 31, 1879, are common to this schedule and are not here reproduced.]

Amount of borrowed money not included in "Amount due and to become due for borrowed money, including interest."

Amount of all other existing claims, debts, and demands against the company, whether absolute or contingent, due or to become due, viz:

[4 blank lines.]

Aggregate of all liabilities of the company, not including guaranty fund and scrip.

## 714 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### STATEMENT OF INCOME FOR THE YEAR 1879.

[Inquiries numbered 1 to 5, under "Income," in special schedule "Fire and Marine Insurance—Stock," for year ending December 31, 1879, are common to this schedule and are not here reproduced.]

Cash premiums on risks written during the year, not actually paid during the year (carried inside).

Amount of premium deposit, less ..... per cent, received during the year, for perpetual fire risks (carried inside).

Amount of premium notes liable to assessment actually received during the year (carried inside).

Amount of cash actually received during the year for assessments or calls on premium notes.

[Inquiries numbered 7 to 14, under "Income," in special schedule "Fire and Marine Insurance—Stock," for year ending December 31, 1879, are common to this schedule and are not here reproduced.]

Amount of cash received from all other sources, viz: Policy fees.

[4 blank lines.]

Aggregate amount of cash actually received during the year.

### STATEMENT OF THE EXPENDITURES OF THE COMPANY FOR THE YEAR 1879.

[Inquiries numbered 1 to 5, under "Expenditures," in special schedule "Fire and Marine Insurance—Stock," for year ending December 31, 1879, are common to this schedule and are not here reproduced.]

Amount of cash paid or returned during the year to members who have discontinued their policies.

Amount of premium notes returned during the year to members who have discontinued their policies (carried inside).

Amount of cash premiums returned during the year as profits or surplus on terminated policies.

Amount of scrip redeemed in cash during the year.

Amount of interest paid to scripholders during the year.

Amount of interest paid to members on amounts deposited in banks as security for payment of losses, expenses, and membership fees.

[Inquiries numbered 10 to 12 and 14 to 21, under "Expenditures," in special schedule "Fire and Marine Insurance—Stock," for year ending December 31, 1879, are common to this schedule and are not here reproduced.]

Amount paid during the year for commissions and brokerage, including agencies.

[Inquiries numbered 22 to 29, under "Expenditures," in special schedule "Fire and Marine Insurance—Stock," for year ending December 31, 1879, are common to this schedule and are not here reproduced.]

Recapitulation of fire risks and premiums.

[The inquiries under this head in special schedule "Fire and Marine Insurance—Stock," for year ending December 31, 1879, are common to this schedule and are not here reproduced.]

REPORT OF THE (INSURANCE COMPANY OR ASSOCIATION) OF .....,  
 State of ....., to the Superintendent of the Tenth Census.—Ten years' business  
 from January 1, 1870 (or date of organization, if later), to December 31, 1879.  
 Proper address of the company or association. (Give corporate name and place of  
 its principal office.)

	Dec. 31, 1869.	Dec. 31, 1879.
Number of members.....		
[Inquiries 1 to 7 (preliminary inquiries) in special schedule "Fire and Marine Insurance—Stock, Ten Years' Business," are common to this schedule and are not here reproduced.]		
Amount of loans secured by bond and mortgage:		
Par value, 1869, .....; 1879, .....		
Market value, 1869, .....; 1879, .....		
Amount loaned each year, carried out.....		
Amount of loans secured by stocks and otherwise than by bond and mortgage:		
Par value, 1869, .....; 1879, .....		
Market value, 1869, .....; 1879, .....		
Amount loaned each year, carried out.....		
Amount of cash on hand and in bank.....		
Amount of notes on hand received for premiums and in advance for premiums (bills receivable).....		
Amount of assessments on premium notes and policies outstanding and collectible.....		
Amount of premium notes held by the company which are liable to assessment, less amount of assessment made thereon from date.....		
Number of premium notes held by the company.....		
Amount of insurance in force subject to assessment where no pre- mium notes were given.....		
[Inquiries 12 to 20 and 22 to 25 (preliminary inquiries) in special schedule "Fire and Marine Insurance, Stock—Ten Years' Busi- ness," are common to this schedule and are not here repro- duced.]		
Net amount of fire risks in force:		
Amount of cash premiums thereon.....		
Amount of premium notes thereon.....		
Net amount of marine risks in force:		
Amount of cash premiums thereon.....		
Amount of premium notes thereon.....		
Net amount of inland risks in force:		
Amount of cash premiums thereon.....		
Amount of premium notes thereon.....		

STATEMENT OF THE ASSETS OF THE COMPANY ON DECEMBER 31 OF EACH YEAR FOR  
 TEN YEARS.

	Number of members added to com- pany during the year.	Number of members re- tired from the company during the year.	Whole amount of guarantee fund author- ized Dec. 31.	Amount of guarantee fund paid up in cash Dec. 31.	Amount of guarantee fund paid up in subscrip- tion notes Dec. 31.	Real estate owned by the company at its market value, less all incum- brances there- on, Dec. 31.
1870.....						
1871.....						
1872.....						
1873.....						
1874.....						
1875.....						
1876.....						
1877.....						
1878.....						
1879.....						
Total .....						

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

**STATEMENT OF THE ASSETS, ETC.—Continued.**

[illegible]

STATEMENT OF THE ASSETS, ETC.—Continued.

[illegible]

## STATEMENT OF THE LIABILITIES OF THE COMPANY DECEMBER 31 IN EACH YEAR FOR TEN YEARS.

	Losses unpaid Dec. 31.				Reinsurance Dec. 31.		
	Net amount of all unpaid fire losses.	Net amount of all unpaid marine losses.	Net amount of all unpaid inland losses.	Total net amount of all unpaid losses.	Amount required to safely reinsure all outstanding fire risks, being 50 per cent of the premiums received (cash and notes) on risks running 1 year and under, and pro rata for all periods more than 1 year. (a)	Amount required to safely reinsure all outstanding marine risks, being 100 per cent of all premiums (cash and notes) on same.	Amount required to safely reinsure all outstanding inland risks, being 100 per cent of all premiums (cash and notes) on same.
1870.....							
1871.....							
1872.....							
1873.....							
1874.....							
1875.....							
1876.....							
1877.....							
1878.....							
1879.....							
Total..							

a If any proportion of the interest premiums on perpetual deposits is included, state amount.

## STATEMENT OF THE LIABILITIES, ETC.—Continued.

	Amount re-claimed by the insured on perpetual deposits, being ..... per cent of the deposits Dec. 31.	Amount of unpaid scrip ordered to be redeemed Dec. 31.	Amount of all other liabilities of the company Dec. 31.	Gross amount of all liabilities of the company, not including guarantee fund and scrip, Dec. 31.	Net assets Dec. 31.
1870.....					
1871.....					
1872.....					
1873.....					
1874.....					
1875.....					
1876.....					
1877.....					
1878.....					
1879.....					
Total .....					

## 718 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## BUSINESS OF THE COMPANY EACH YEAR FOR TEN YEARS.

Fire risks written.									
	Number of fire policies written during the year liable to assessment where no premium notes were given.	Amount of fire risks liable to assessment where no premium notes were given, canceled or surrendered during the year.	Number of fire policies written during the year on which premiums were received. (a)	Gross amt't of fire risks written during the year on which cash premiums or premium notes were received. (a)	Amount of fire risks on which premiums were received, expired, and terminated during the year.	Amount of fire risks reinsured during the year.	Amount of premiums charged on fire risks written during the year.	Amount of premiums charged on fire risks expired and marked off as terminated during the year.	Average rate of premiums charged on fire risks written during the year.
1870...									
1871...									
1872...									
1873...									
1874...									
1875...									
1876...									
1877...									
1878...									
1879...									
Total.									

a Do not include perpetual business.

## BUSINESS OF THE COMPANY, ETC.—Continued.

Marine risks written.							
	Number of marine policies written during the year.	Gross amount of marine risks written during the year.	Amount of marine risks expired and terminated during the year.	Amount of marine risks reinsured during the year.	Amount of premiums charged on marine risks written during the year.	Amount of premiums charged on marine risks expired and marked off as terminated during the year.	Average rate of premiums charged on marine risks written during the year.
1870....							
1871....							
1872....							
1873....							
1874....							
1875....							
1876....							
1877....							
1878....							
1879....							
Total.							

**BUSINESS OF THE COMPANY, ETC.—Continued.**

	Inland transportation risks written.							
	Number of inland policies written during the year.	Gross amount of inland risks written during the year.	Amount of inland risks expired and terminated during the year.	Amount of inland risks reinsured during the year.	Amount of premiums charged on inland risks written during the year.	Amount of premiums charged on inland risks expired and marked off as terminated during the year.	Amount of premiums charged on inland risks reinsured during the year.	Average rate of premiums charged on inland risks written during the year.
1870....								
1871....								
1872....								
1873....								
1874....								
1875....								
1876....								
1877....								
1878....								
1879....								
Total.								

## RECEIPTS AND INCOME OF THE COMPANY EACH YEAR FOR TEN YEARS.

[illegible]

## RECEIPTS AND INCOME FOR TEN YEARS—Continued.

[illegible]

## RECEIPTS AND INCOME FOR TEN YEARS—Continued.

[illegible]

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 721

## RECEIPTS AND INCOME FOR TEN YEARS—Continued.

Income from interest, dividends, rents, etc.								
Interest received during the year on bonds and mortgages.	Interest received during the year on stocks and bonds and Treasury notes owned by the company.	Interest received during the year on guaranty fund.	Interest and dividends received during the year on loans on collateral securities, and from all other sources not included in previous items.	Gross amount received during the year for interest and dividends.	Amount received during the year for rents.	Amount of receipts and income during the year from all other sources not included in previous items.	Total amount of cash received during the year from all sources.	Amount added to assets by the increase in market value of stock, bonds, and other investments absolutely owned by the company.
1870....								
1871....								
1872....								
1873....								
1874....								
1875....								
1876....								
1877....								
1878....								
1879....								
Total.								

## EXPENDITURES OF THE COMPANY EACH YEAR FOR TEN YEARS.

Fire losses.					Marine losses.				
Number of fire losses during the year.	Gross amount paid for fire losses during the year. (a)	Amount received during the year for salvages on fire losses.	Amount received during the year for reinsurance in other companies.	Net amount paid for fire losses during the year.	Number of marine losses during the year.	Gross amount paid for marine losses during the year.	Amount received during the year for salvages on marine losses.	Amount received during the year for reinsurance in other companies.	Net amount paid for marine losses during the year.
1870....									
1871....									
1872....									
1873....									
1874....									
1875....									
1876....									
1877....									
1878....									
1879....									
Total.									

a Amount of losses paid on account of Chicago fire in 1871, .....  
Amount of losses paid on account of Boston fire in 1872, .....

**EXPENDITURES FOR TEN YEARS—Continued.**

[illegible]

**EXPENDITURES FOR TEN YEARS—Continued.**

[illegible]

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 723

## EXPENDITURES FOR TEN YEARS—Continued.

	On account of expenses, etc.						
	Amount paid during the year for salaries, fees, and compensation to officers.	Amount paid during the year for salaries, fees, and compensation to directors, attorneys, clerks, and all other employees of the company, not including agencies.	Amount of cash paid during the year for taxes.				Total paid during the year for taxes, fees, etc.
			State: Exclusive of assessments for benevolent associations, fire departments, and fire patrols.	Municipal: Exclusive of assessments for benevolent associations, fire departments, and fire patrols.	Amount paid for registry fees, licenses to agents, assessments for benevolent associations, and all other services imposed by state and municipal governments, exclusive of taxes, fire departments, and fire patrols.	National.	
1870....							
1871....							
1872....							
1873....							
1874....							
1875....							
1876....							
1877....							
1878....							
1879....							
Total.							

## EXPENDITURES FOR TEN YEARS—Continued.

	Expenses—Continued.						Aggregate amount of all cash expenditures during the year.	Amount of decrease in assets by the decline in market value during the year of stocks, bonds, and other investments absolutely owned by the company.
	Amount paid during the year for fees, commissions, and brokerage, including agencies.	Amount paid during the year for agency expenses, exclusive of commissions.	Amount of interest paid during the year on borrowed money.	Amount of interest paid during the year on guarantee fund.	Amount paid during the year for expenses not included in previous items.	Total amount paid during the year for expenses. (a)		
1870....								
1871....								
1872....								
1873....								
1874....								
1875....								
1876....								
1877....								
1878....								
1879....								
Total.								

a Estimated proportion of expenses chargeable to fire business .....

Estimated proportion of expenses chargeable to marine and inland business .....

## SCRIP STATEMENT FOR TEN YEARS.

	Amount of net earned premiums on which dividends or profits were declared during the year.	Amount of dividends or profits declared during the year.	Amount of dividends carried to "Special reserve fund" during the year.	Amount of dividends declared during the year, paid in scrip (or scrip issued).	Amount of scrip paid or redeemed during the year.	Amount of scrip called in and canceled without being liquidated during the year.	Amount of interest paid on scrip during the year.	Rate of interest paid on scrip during the year.
1870....								
1871....								
1872....								
1873....								
1874....								
1875....								
1876....								
1877....								
1878....								
1879....								
Total.								

## STATEMENT OF PERPETUAL BUSINESS FOR TEN YEARS, 1870 TO 1879, INCLUSIVE.

(Companies not doing perpetual business for the entire ten years will give figures for the years they did write such risks.)

	Number of members added during the year.	Number of members retiring during the year.	Number of perpetual policies written during the year.	Number of perpetual policies marked off as canceled during the year.	Amount of perpetual risks written during the year.	Average rate.	Amount of perpetual risks marked off as canceled during the year.	Amount of liens on property given during the year to secure assessments.	Amount of perpetual deposits received during the year.
1870....									
1871....									
1872....									
1873....									
1874....									
1875....									
1876....									
1877....									
1878....									
1879....									
Total.									

December 31, 1869.

Number of perpetual policies in force.  
Amount of perpetual risks in force.  
Amount of premium deposits thereon.

Net amount of interest premiums, being 6 per cent of the premium deposits.  
Amount of unpaid losses (perpetual).

What are the particular advantages to both insurer and insured derived from this mode of insuring

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 725

## STATEMENT OF PERPETUAL BUSINESS, ETC.—Continued.

	Amount of original or bonus premiums received during the year.	Amount of interest premiums for the year, it being 6 per cent of the amount of deposits outstanding December 31 of the previous year.	Amount of assessments made during the year.	Amount of assessments paid during the year.	Number of perpetual losses paid during the year.	Amount of perpetual losses paid during the year.	Amount of deposits returned for risks marked off as canceled during the year.	Amount of interest on losses paid to tenants for life (during the year).
1870....								
1871....								
1872....								
1873....								
1874....								
1875....								
1876....								
1877....								
1878....								
1879....								
Total.								

December 31, 1879.

Number of perpetual policies in force.  
Amount of perpetual risks in force.  
Amount of premium deposits thereon.

Net amount of interest premiums, being 6 per cent of the premium deposits.  
Amount of unpaid losses (perpetual).

REPORT OF THE (INSURANCE COMPANY OR ASSOCIATION) OF ....., State of ....., to the Superintendent of the Tenth Census, showing the business done in each State for ten years, 1870 to 1879.

(Companies not doing business in any state for the entire ten years will give the figures for such years as they did do business therein.)

Proper address of the company or association. (Give corporate name and place of its principal office.)

STATEMENT OF THE FIRE, MARINE, AND INLAND TRANSPORTATION INSURANCE BUSINESS IN THE STATE OF ALABAMA (a) FOR TEN YEARS, 1870 TO 1879, INCLUSIVE.

(Companies will include all business, whether done through established agencies, brokers, or otherwise.)

The answers to all the questions will be confidential, as they relate to individual companies.

	Fire business.			Marine business.			Inland transportation business.		
	Amount of fire risks written during the year.	Amount of fire premiums received during the year.	Amount of fire losses paid during the year.	Amount of marine risks written during the year.	Amount of marine premiums received during the year.	Amount of marine losses paid during the year.	Amount of inland risks written during the year.	Amount of inland premiums received during the year.	Amount of inland losses paid during the year.
1870.....									
1871.....									
1872.....									
1873.....									
1874.....									
1875.....									
1876.....									
1877.....									
1878.....									
1879.....									
Total..									

a The printed schedule contains a similar form for each state and territory, arranged alphabetically.

## 726 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

REPORT OF THE (INSURANCE COMPANY OR ASSOCIATION) OF -----,  
State of -----, to the Superintendent of the Tenth Census.

## SPECIAL FIRE HAZARDS AND CLASSIFIED MARINE RISKS.

(Information voluntarily given by companies.)

[The explanation concerning special schedule "Fire and marine insurance—mutual, special fire hazards, and classified marine risks" is common to this schedule and is not here reproduced.]

## EXPERIENCE ON SPECIAL HAZARDS.

	Cotton mills. (a)				
	Number of risks written during each year.	Amount of risks written during each year.	Amount of cash premiums and cash assessments received during each year.		Amount of losses paid during each year.
1870.....					
1871.....					
1872.....					
1873.....					
1874.....					
1875.....					
1876.....					
1877.....					
1878.....					
1879.....					
Total.....					

a The printed schedule contains a similar form for woolen mills; flouring mills; boot and shoe manufactories; paper mills; churches; ironworking establishments (working the metal only); hardware manufactories; woodworking establishments (not including planing mills and sawmills); establishments working iron and wood in conjunction; breweries and malt houses; lumber yards; tanneries (cold liquor and steam); india rubber and gutta-percha works; bleacheries, dye and print works; planing mills; sawmills; hotels, and contents; printing, lithographing, and bookbinding; colleges, schoolhouses, seminaries, asylums, and hospitals; jails and prisons; wholesale drug stocks; tobacco and cigar factories; city and county public buildings (state-houses, court-houses, municipal buildings; railroad risks (depots, freight houses, machine shops, rolling stock); coal breakers.

Companies are requested to give their figures for the years of the last decade during which they issued policies on the above kinds of property.

The above figures will be held strictly confidential, and the results given only in aggregates.

The inspection of the reports of companies on special hazards by anyone beyond the census office will not be allowed at this or any future time.

## CLASSIFIED EXPERIENCE ON MARINE BUSINESS.

	On vessels. (a)									
	Sums written during each year.	Sums marked off each year as terminated.	Sums outstanding Dec. 31 of each year.	Amount of premiums written each year.	Amount of return premiums each year.	Net premiums received each year.	Amount of premiums marked off as earned each year.	Amount of premiums outstanding Dec. 31 of each year.	Amount of losses paid each year.	
1870....	\$	\$	\$	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
1871....										
1872....										
1873....										
1874....										
1875....										
1876....										
1877....										
1878....										
1879....										
Total										

a The printed schedule contains a similar form for cargo, freight, whaling risks, and collision risks—special policies covering losses occasioned by collisions with other vessels for which the insured vessel may be liable.

Companies are requested to give their figures for the years of the last decade during which they issued marine or inland policies.

The above figures will be held strictly confidential, and the results given only in aggregates.

The inspection of the reports of companies by anyone beyond the census office will not be allowed at this or any future time.

**FIRE AND MARINE INSURANCE—STOCK OR MUTUAL COMPANIES.****REPORT OF THE (INSURANCE COMPANY OR ASSOCIATION) OF .....**

State of ....., to the Superintendent of the Tenth Census.

Proper address of the company or association.

(Give corporate name and place of its principal office.)

Date of charter or organization.

By whom chartered.

Is the charter perpetual or limited?

Character of organization, stock or mutual.

Names of officers:

President.

Vice-president.

Secretary.

Does the company do an exclusively fire insurance business? If not, state kinds.

Does the company confine its business to insuring particular kinds of property? If so, state kinds.

How are the profits of the company payable (in cash or scrip)?

Total amount of risks written from organization to date.

Total amount of cash premiums received from organization to date.

Total number of premium notes received from organization to date.

Total amount of premium notes received from organization to date.

Total amount of assessment on premium notes from organization to date.

Total amount of assessments on policies (where no notes were given) from organization to date.

Total number of losses from organization to date.

Total amount of losses from organization to date.

Number employed as bookkeepers and clerks at the principal office of the company.

Number employed as solicitors and surveyors by the company.

Number employed otherwise by the company, not including state, field, special, or local agents.

Give the names of the states in which you transact business, either through established agencies or otherwise.

State the company's plan or plans of doing business, and the particular advantages derived by them over other systems.

	Dec. 31, 1869.	Dec. 31, 1879.
Whole number of members.....		
Value of real estate owned by the company less all incumbrances....		
Market value of all securities owned by the company.....		
Amount of loans on bond and mortgage.....		
Amount of loans on collateral securities.....		
Amount of cash on hand and in bank.....		
Amount of cash premiums in course of collection.....		
Amount of assessments in course of collection.....		
Amount due for fees and percentages on policies in force.....		
Number of premium notes held by the company on policies in force..		
Amount of premium notes held by the company less all assessments on same.....		
Number of policies in force liable to assessment where no notes were taken.....		
Amount of insurance effected by policies in force where no premium notes were taken, less all assessments made on the same.....		
Amount of all assets of the company, including furniture, fixtures, and supplies, at actual value.....		
Amount due for unpaid losses.....		
Amount of all other liabilities of the company.....		
Amount of fire risks in force.....		

**STATEMENT FOR TEN YEARS (OR SINCE DATE OF ORGANIZATION).**

[illegible]

a Joint policies accounted as one membership.

**STATEMENT FOR TEN YEARS, ETC.—Continued.**

[illegible]

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 729

## STATEMENT FOR TEN YEARS, ETC.—Continued.

	Losses.		Taxes.		Amount paid each year for officers' salaries, fees, and perquisites.	Amount of all other expenses paid during each year.	Total amount of cash expenditures during each year.
	Number of losses during each year.	Amount paid for losses during each year.	Amount paid each year for state taxes.	Amount of all other taxes, assessments, and fees by state and municipal governments paid during each year.			
1870....							
1871....							
1872....							
1873....							
1874....							
1875....							
1876....							
1877....							
1878....							
1879....							
Total							

## STATE, FIELD, SPECIAL, AND LOCAL AGENTS.

Names.	Kind of agent.	Location.	Post-office address.	
			City.	State.
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

REPORT OF THE INSURANCE AGENCY OF ....., located in the City (or Town) of ....., County of ....., State of ....., to the Superintendent of the Tenth Census.

Does your agency receive from the companies a fixed compensation, or a percentage on amount of business done?

Are the expenses of your agency paid from the compensation received, or are they charged to the companies?

Amount of state, county, and municipal taxes paid during the year 1879 by your agency. Was the amount charged to the companies?

Amount of license fees of all kinds paid by your agency during the year 1879. Was the amount charged to the companies?

Amount of assessments for benevolent societies paid by your agency during the year 1879. State kinds of societies. Was the amount charged to the companies?

Amount paid for the support of fire department by your agency during the year 1879. Was the amount charged to the companies?

Amount paid for the support of fire patrols by your agency during the year 1879. Was the amount charged to the companies?

The name of the chief officer of the fire department in your place, if any?

Insurance companies represented by ..... in the City (or Town) of ....., County of ....., State of .....

Name of company.	Location of principal office.		Name of managing officer.	Stock or mutual.	Fire, marine, or inland business.
	City.	State.			
(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

# 730 HISTORY AND GROWTH OF THE UNITED STATES CENSUS

Statement of Employees of ..... Insurance Agency at ....., County of .....,  
State of .....

Business of the agency—Fire, marine, or inland.	Employees.	Number during the year 1879.	Aggregate amount of salaries and other expenses dur- ing the year 1879.
.....	Bookkeepers and clerks....		\$
.....	Solicitors .....		
.....	Surveyors .....		
..... [2 blank lines.]	Other employees .....		

Agency at ....., State of .....

## VOLUNTARY INFORMATION.

(Please make the lists as complete as possible.)

Professional Insurance Adjusters (a) in the City (or Town) of ....., County of .....,  
State of .....

Names.	Fire, marine, or inland.	Address.
(b)	(b)	(b)

<sup>a</sup> Adjusters not directly connected with any insurance company. State those you have knowl-  
edge of.

<sup>b</sup> Several blank lines are printed in schedule.

Insurance Solicitors and Brokers (a) in the City (or Town) of ....., County of .....,  
State of .....

Names.	Fire, marine, or inland.	Address.
(b)	(b)	(b)

<sup>a</sup> Solicitors and brokers not holding a commission as agent of an insurance company nor repre-  
senting an insurance agency. State those you have knowledge of.

<sup>b</sup> Several blank lines are printed in schedule.

## FIRE DEPARTMENTS AND WATER SUPPLY.

### STATISTICS OF CITIES AND TOWNS, HAVING RELATION TO FIRE INSURANCE.

Report for the City (or Town) of ....., County of ....., State of .....

Is it a town, village, or incorporated city?

What is its total area? ..... square acres.

What is the area of the fire limit? ..... square acres.

What is the average width of the streets? ..... feet.

Are the streets lighted with gas?

Has it an ordinance regulating the sale and use of petroleum?

Has it an ordinance regulating the sale and use of fireworks and firecrackers?

Has it an ordinance providing for investigating the causes of fires?

### MERCANTILE BUILDINGS.

What building material is principally used in their construction?

What is the usual height? ..... stories.

What is the minimum thickness of bearing walls required by the building law?  
..... inches.

What is the maximum width allowed by the building law without division walls?  
..... feet.

Are shingle or other wooden roofs permitted by the building law?

Have your business blocks intersecting lanes or alleys?

## DWELLINGS.

What building material is principally used in their construction?  
 What is their usual height? ..... stories.  
 Are they generally built in rows, or detached?

## FIRE DEPARTMENT.

Is there a fire department in the place?  
 If not, what are the facilities for extinguishing fires?  
 If yes, please give the following details, viz:  
   The number of steam fire engines.  
   The number of hand fire engines.  
   The number of chemical engines (on wheels).  
   The number of chemical extinguishers (hand).  
   The number of hook and ladder trucks.  
   The number of hose carriages (all kinds).  
   The number of fire boats. (a)  
 If any other apparatus for extinguishing fires, state number and kind.  
 Have you the Siamese couplings in use?

	Number of feet in good con- dition.	Number of feet in poor con- dition.
Quantity of rubber hose on hand serviceable.....		
Quantity of cotton hose on hand serviceable .....		
Quantity of linen hose on hand serviceable .....		
Quantity of leather hose on hand serviceable .....		

Have the hose couplings a uniform size thread?  
 The number of horses owned and in use.  
 The total value of the fire department apparatus, supplies, etc., ..... dollars.  
 The number of buildings owned and in use.  
 The estimated value of the buildings. .... dollars.  
 The number of companies composing the fire department.  
 The total membership of the fire department.  
 The number of members paid for full time.  
 The number of members paid for part time.  
 The number of volunteer members.  
 The total expense for maintaining the fire department for the year 1879. ....  
 dollars.  
 The methods used for giving alarms of fire.  
 If by fire-alarm telegraph, state number of street boxes.  
 When was the department changed from a volunteer to a paid system?  
 What was the general efficiency of the force under the volunteer system, and  
 what is it under the paid system?  
 What was the morale of the force under the volunteer system, and what is it  
 under the paid system?  
 What was the average yearly expense of the department under the volunteer  
 system? ..... dollars.

## FIRE PATROL, SALVAGE CORPS, ETC.

Is there a fire patrol, salvage corps, or protecting society (fire) in the place?  
 If yes, please state as follows, viz:  
   Is it incorporated?  
   By whom supported?  
   The number of permanent members.  
   The number of auxiliary members.  
   The total value of fire patrol apparatus, supplies, etc. .... dollars.  
   The number of buildings owned and occupied.  
   The estimated value of the buildings. .... dollars.  
   The total expense of maintaining the fire patrol, etc., for the year 1879. ....  
   dollars.

a Cities having a water front

## 732 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### WATER SUPPLY.

How is the place supplied with water?  
 If by reservoirs, state the number.  
 How they are supplied with water.  
 Their total capacity per diem. .... gallons.  
 If by cisterns, state the number.  
 How they are supplied with water.  
 Their total capacity per diem. .... gallons.  
 Is there a water supply distributed through pipes, mains, and hydrants?  
 If yes, please state, viz.:  
     By what power or system?  
         Direct pumping.  
         Gravity.  
         Holly system.  
         Or otherwise.  
 The number of miles of street mains and supply pipes.  
 The diameter of the largest main or pipe.  
 The diameter of the smallest main or pipe.  
 The number of fire plugs or hydrants in use.  
 The amount of water pressure from the hydrants. .... pounds.  
 The average daily consumption of water. .... gallons.  
 The total expense of maintaining the water department for the year 1879. .... dollars.

### LOSSES BY FIRE DURING THE YEARS 1879 AND 1880.

[A special effort is being made by the tenth census to secure a complete account of the number and amount of losses by fires that have occurred in the United States during the years 1879 and 1880.

No official enumeration of the yearly loss from this cause has ever been made, and the opportunity to obtain the same is now offered through the census office.

The compilation will be classified by states, and will show the loss on each kind of property burned, and when completed will give information that will be interesting and valuable to all the public, private, and individual interests of the country.

Will you kindly lend your assistance in this undertaking, and give upon the reverse page a list of all the fires that have occurred in or near your place during the years above specified.]

Also return this form if no fires are reported.

Dates fires occurred.		Names of owners or occupants of buildings burned.	Post-office address of owners or occupants.	Purposes for which the buildings were used.	Total amount of loss.	
Year.	Month.				Dollars.	Cents.

NOTE.—Please give name and address of owner or occupant if you can not give loss.

Signed: .....

### LIFE INSURANCE.

#### SCHEDULE A.

STATEMENT for the year ending December 31, 1879, of the condition and affairs of the ....., organized under the laws of the State of ....., made to the Superintendent of Census.

President.  
 Vice-President.  
 Secretary.  
 Actuary.  
 Medical officer.  
 Law officer.  
 Principal office.

Incorporated A. D.

Began business A. D.

Authorized capital stock.

I. Capital stock account:

Amount of capital stock paid up in cash.

Amount of capital subscribed but unpaid.

Amount of net or ledger assets, December 31 of previous year. (a)

Increase of capital during 1879. (b)

Extended at .....

II. Income during year 1879:

Cash received for premiums (except as per line 3) without deductions for commission or other expenses.

Premium notes, loans, or liens taken in part payment for premiums (except as per line 3).

Premiums paid by dividends, including reconverted additions, and by surrendered policies.

Cash received for annuities.

Total.

Deduct amount of premiums paid to other companies for reinsurance on policies in this company, less dividends thereon.

Total premium income.

Cash received for interest upon mortgage loans.

Cash received for interest on bonds owned and dividends on stock.

Cash received for interest on premium notes, loans, or liens.

Cash received for interest on other debts due the company.

Cash received as discount on claims paid in advance.

Cash received for rents for use of company's property.

Cash received for profits on bonds, stocks, or gold *actually sold*.

Total interest income.

Cash and notes other than premiums received from other companies for assuming or reinsuring their risks.

Cash received from .....

Total income.

III. Disbursements during year 1879:

Cash paid for losses and additions.

Premium notes, loans, or liens used in payment of the same.

Cash paid for matured endowments and additions.

Premium notes, loans, or liens used in payment of same.

Total.

Deduct amount received from other companies for losses or claims on policies reinsured, of which \$..... is for matured endowments.

Total amount actually paid for losses and matured endowments.

Cash paid to annuitants.

Cash paid for surrendered policies.

Premium notes, loans, or liens used in purchase of surrendered policies and voided by lapse.

Cash surrendered values, including reconverted additions applied in payment of premiums.

Cash dividends paid to policy holders, including dividends applied in payment of premiums.

Premium notes, loans, or liens used in payment of dividends to policy holders.

Total paid policy holders.

Cash paid stockholders for interest or dividends.

Cash paid for commissions to agents.

Cash paid for salaries and traveling expenses of managers of agencies and general, special, and local agents.

Cash paid for medical examiners' fees.

Cash paid for salaries and other compensation of officers and other office employees.

Cash paid for United States taxes and revenue stamps; state and local taxes in state where organized; taxes, licenses, fines, and fees in other states.

Cash paid for rent, less amounts received under sublease.

---

*a* Comprising balance of all ledger accounts counted as assets.

*b* The increase or decrease of capital, if any, should be noted, and the net or ledger assets so augmented or diminished extended.

## 734 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### III. Disbursements during year 1879—Continued.

Cash paid for commuting commissions.  
 Cash advanced to officers and agents, to be repaid out of future salaries or commissions.  
 Cash paid for furniture and fixtures and safes for home and agency offices.  
 Cash paid for advertising.  
 Cash paid for the following items, viz:  
     [1 blank line.]

Total disbursements.

Balance. (Invested in the following assets, as per ledger accounts.)

### IV. Assets (as per ledger accounts):

Cost value of real estate, exclusive of all encumbrances. (a)  
 Loans on bonds and mortgages (first lien) on real estate.  
 Loans secured by pledge of bonds, stocks, or other marketable collaterals.  
 Loans made in cash to policy-holders on this company's policies assigned as collateral, the reserve on each policy being in excess of the loan thereon.  
 Premium notes, loans, or liens on policies in force, the reserve on each policy being in excess of all indebtedness thereon. (b)  
 Cost value of bonds and stocks owned absolutely. (c)  
 Cash in company's office and deposited in banks.  
 Bills receivable.  
 Agents' ledger balances.  
 Total net or ledger assets December 31, of *previous year*.  
 Deduct depreciation from cost of assets to bring same to market value.  
 Total net or ledger assets less depreciation.

### Other assets:

Interest due and accrued on bonds, mortgages, stocks, collaterals, loans, etc.  
 Interest due and accrued on premium notes, loans, or liens.  
 Rents due and accrued on company's property or lease.  
 Market value of real estate *over cost*.  
 Market value of bonds and stocks *over cost*.  
 Due from other companies for losses or claims on policies of this company reinsured.  
 Gross premiums due and unreported on policies in force December 31, 1879.  
 Gross deferred premiums on policies in force December 31, 1879.  
 Total.  
 Deduct the loading on above gross amount.  
 Uncollected and deferred premiums (American 4½ per cent net).  
 Furniture, fixtures, and safes.  
 Total assets as per the books of the company. (d)

### V. Liabilities:

Net present value of all the outstanding policies in force on the 31st day of December, 1879, computed according to *The American Table of Mortality*, with 4½ per cent interest.  
 Deduct net value of risks of this company reinsured in other solvent companies.  
 Net reinsurance reserve.  
 Premium obligations in excess of the net values of their policies.  
 Claims for death losses due and unpaid.  
 Claims for matured endowments due and unpaid.  
 Claims for death losses and matured endowments in process of adjustment, or adjusted and not due.  
 Claims for death losses and other policy claims resisted by the company.  
 Amounts due and unpaid on annuity claims.  
 Total policy claims.  
 Amount of all unpaid dividends of surplus, or other description of profits due policy-holders.  
 Amount of unpaid dividends to stockholders.

---

*a* If the cash value of real estate is less than cost, the amount of depreciation should be deducted after the balance "Total net ledger assets" is given.

*b* This item to include only premium notes, loans, or liens taken for part payment of premiums.

*c* If the cash value of bonds and stocks is less than cost, the amount of the depreciation should be deducted after the balance "Total net ledger assets" is given.

*d* Conformably to the rulings of state insurance departments employing the American 4½ per cent standard of policy valuation.

## V. Liabilities—Continued.

Amount of national, state, or other taxes due.  
 Amount due on account of salaries, rents, and office expenses.  
 Amount due by the company for borrowed money, including interest due or accrued.  
 Amount due to officers or others for advances on account of expenses of organization.  
 Amount of any other liability of the company, viz:  
     [1 blank line.]  
 Liabilities on policy-holders' account.  
 Gross surplus on policy-holders' account.  
 Total liabilities.  
 Estimated surplus accrued on tontine or other policies, the profits upon which are especially reserved for that class of policies.  
 Estimated surplus accrued on all other policies.  
 Assets not admitted:  
 Loans on company's own stock.  
 Company's own stock.  
 Judgments; furniture, fixtures, and safes.  
 Commuted commissions.  
 Cash advanced to, or in the hands of, officers or agents.  
 Agents' balances.  
 Loans on personal security, indorsed or not.  
 Bills receivable.  
 Supplies, printed matter and stationery.

## VI. Premium note account:

Premium notes, loans, or liens on hand December 31 of previous year.  
 Premium notes, loans, or liens received during the year.  
 Total.  
 Deductions during the year as follows:  
     Amount of notes, loans, or liens used in payment of losses and claims.  
     Amount of notes, loans, or liens used in purchase of surrendered policies, and voided by lapse.  
     Amount of notes, loans, or liens used in payment of dividends to policy-holders.  
     Amount of notes, loans, or liens redeemed by maker in cash.  
     Total reduction of premium note account.  
     Balance, note assets at end of the year.  
 State the number of persons employed in the general administration or conduct of the business as officers, accountants, clerks, or otherwise.  
 State the number of persons employed as agents for procuring business.  
 State the number (ascertained or estimated) of persons employed under such agents in soliciting and procuring business.

## SCHEDULE B.

THE ..... COMPANY OF ....., State of .....

EXHIBIT OF ITS POLICIES ISSUED AND POLICIES TERMINATED, REPORTED TO THE SUPERINTENDENT OF CENSUS.

## EXHIBIT OF POLICIES ISSUED.

[Being a correct statement of the number and the amount insured of all policies, including additions, issued, revived, or increased during each calendar year of the company's existence.]

Classification by plans.	1. Whole-life poli- cies.		2. Endowment policies.		3. All other policies.		4. Total numbers and amounts.	
	Num- ber.	Amount.	Num- ber.	Amount.	Num- ber.	Amount.	Num- ber.	Amount.
Issued, revived, or increased during year 1879. (a) .....								

a Same inquiry repeated for each year backward to 1840.

# 736 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## EXHIBIT OF POLICIES TERMINATED.

[Being a correct statement of the number, the amount insured, including additions, and the mode of termination, of all policies terminated during each calendar year of the company's existence.]

Classification by plans.	1. Whole life.		2. Endowment.		3. All other.		4. Total numbers and amounts.	
	Num- ber.	Amount.	Num- ber.	Amount.	Num- ber.	Amount.	Num- ber.	Amount.
During the year 1879 (a):								
Terminated by death...								
Terminated by maturi- ty.								
Terminated by expiry ..								
Terminated by surren- der.								
Terminated by lapse....								
Terminated by change and decrease.								
Terminated by not taken.								
Terminated otherwise ..								
Total.....								

a The printed schedule contains a similar form for each year (in reverse order) from 1840 to 1878, inclusive.

## SCHEDULE C.

### LIFE INSURANCE ON THE COOPERATIVE OR ASSESSMENT PLAN.

STATEMENT of the condition, operations, and affairs of the (give here exact full name) Society or ....., of the Town of ....., County of ..... and State of ..... made to the Superintendent of Census.

Name of the presiding officer.

Name of the secretary or officer in charge of records and correspondence.

### CONSTITUTION OF THE SOCIETY.

1. Is this society incorporated by law?
2. By the laws of what state?
3. Designate the statute by chapter and section.
4. At what date was the society organized?
5. At what date did it commence insuring lives?
6. Is the society exclusively for the insuring of lives, or has it other aims and objects as well—charitable, social, religious, secret, or otherwise?
7. State briefly these aims and objects.
8. In what states and localities principally are its operations carried on?
9. How often do elections of officers and managers take place?
10. Is this a principal or only a branch society?
11. If the latter, give full name and location of the principal society.

### MEMBERSHIP.

What are the restrictions as to admission to the society; that is to say—

12. Is admission denied an applicant if under a certain age?
13. What age?
14. If over a certain age?
15. What age?
16. Is admission denied persons following certain trades or occupations?
17. What trades or occupations?
18. Is admission denied to residents of certain sections of the country?
19. What sections?
20. Are females eligible to membership?
- 20a. Are persons of color eligible to membership?

- What are the conditions of admission with regard to health?
21. Is the simple statement of the applicant himself accepted?
  22. Or is it sought to arrive at a decision from the applicant's answers to a series of questions?
  23. And are the answers to these passed upon by the managers?
  24. Or is there a personal examination by a professional medical man?
  25. Is it required of applicants for insurance that they should be members of any organization—secret, charitable, social, or religious?
  26. And what?
  27. Are the payments required of the member for his insurance the same for all ages?
  28. Or are they graded?
  29. If the latter, are they graded according to age of the applicant at time of entrance?
  30. And are they thenceforward to be for the same amount?
  31. Or to increase with the increasing age of the member?
- Of what do these payments consist?
32. An initiation or membership fee?
  33. Annual dues?
  34. Assessments for death losses?
  35. Assessments for expenses?
  36. Give each of these payments for an insurance of \$1,000 at ages below set down:

Age at entry.	Initiation fee.	Annual dues.	Assessment for death losses.	Assessment for expenses.
Thirty .....				
Forty .....				
Fifty .....				

37. Are the above payments to be kept up by the member during his entire membership, or only for a specified time?
38. If only for a specified time, how long?
39. In regard to death assessments, are these assessments, under the system of the society, postponed until the actual occurrence of the death, or are they to a certain extent collected in advance and by anticipation?
40. What is the oldest age of admission to membership?
41. Has this been the regulation always?
42. Is there any limit as to the number of members admissible?
43. What?
44. Is the membership grouped into classes or divisions?
45. What is the purpose of this classification?
46. And upon what plan or basis is it made?
47. Are death assessments used to any extent for the purpose of defraying expenses?

EXPERIENCE AS TO MEMBERSHIP AND AS TO MORTALITY.

48. How does the death rate appear to run—does it appear to be growing more or less favorable?
- Is any line of policy followed for the prevention of an undue rate of mortality, as—
49. By excluding applicants of great age?
  50. By excluding residents of unhealthy sections of the country?
  51. Or otherwise?
  52. From their published circulars the management of some societies would seem to be under the impression that limiting the number of members will keep down the cost of insurance; does your management share in this impression?
  53. Can membership be kept up at the pleasure of the member to the latest age, or is membership to cease upon attainment of a certain age?
  54. If so, at what age?
  55. State the total present amount insured.
  56. State the entire number of members admitted from the beginning.
  57. State the entire number dropped from the beginning for nonpayment of assessments and other dues.
  58. State the entire number of deaths from the beginning.

## 738 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

59. State the total present number of members.
60. Could you fill a blank giving for each member the following particulars?  
The month and year in which he became a member; his then age; the month and year in which he ceased to be a member; and in case of death, the month and year in which he died.

### FINANCIAL CONDITION AND AFFAIRS.

- Receipts from organization up to .....:
61. Total paid in by members.
62. Total from other sources, namely: .....  
Total receipts.
- Disbursements from organization up to .....:
63. Expenses of conducting the business.  
(Of this \$...... was for organization; \$...... for payment of regular officers; and \$...... for compensation of agents engaged in procuring business.)
64. Death claims.
65. All other disbursements, as follows: .....  
Total disbursements.
- Assets:
66. Consisting of ..... valued at .....  
Consisting of ..... valued at .....  
Consisting of ..... valued at .....  
Consisting of ..... valued at .....  
Consisting of ..... valued at .....  
Total assets.
- Liabilities:
67. Unpaid claims of deceased members.  
(Of which \$...... is resisted.)
68. All other liabilities, including stock, as follows: .....  
Total liabilities.  
[The receipts and the disbursements to be given up to January 1, 1880, or any later date if more convenient. Whatever date fixed upon, the assets and the liabilities to be as of the same date.]
69. Authorized capital stock, if any.
70. Paid-up capital stock, if any, included in item 68.

### THE CONTRACT

71. State clearly what are the insurance or endowment rights acquired through membership in the society.
72. Is the insurance for a fixed amount?
73. If not, on what does the amount depend?
74. Is it to become fixed upon the membership reaching a given number?
75. What number?
76. And what then is to be the amount?
77. Regarding a member's insurance rights and privileges as a matter of contract between himself and the society, what documentary evidence of this contract does the individual member hold?
78. And is the entire insurance contract embodied in the document or documents referred to in the preceding answer?
79. Is there any funeral, sick, or accident benefit besides?
80. Is there an endowment or "life maturity" feature, according to which the member having attained a specified age will thereupon become entitled to a money payment from the society?
81. Is this money payment a fixed amount from the first, or is the amount of it dependent upon the then number of the members?
82. For payment of this endowment or "life maturity" benefit, what provision is being made or is to be made?
83. If this is a branch society, in the name of which—the branch or the society at large—is the membership or insurance certificate executed?
84. And to whom do the heirs look for payment of the insurance money—the branch only or the society at large?
85. In case of loss of membership from failure to pay assessments or other dues, is there the right of restoration within a limited time?
86. What time?
87. With or without penalty?
88. What is the greatest amount of insurance that may be taken out on one life?

## MISCELLANEOUS.

89. By whom, practically, are the funds controlled and managed?
  90. Is the treasurer or financial officer under bond for the faithful custody and application of the funds?
  91. Is there any system of checking and auditing accounts periodically?
  92. Are the books and records open to the inspection of the members?
  93. How many agents engaged in procuring members?
  94. Do you make returns to the state insurance departments?
  95. Voluntarily or by requirement of law?
- Please forward herewith copies of all circulars and leaflets put forth by the society, as also the insurance certificate or policy form, assessment notice, and other blanks.

## CENSUS OF 1890.

## FIRE, MARINE, INLAND, AND TORNADO INSURANCE.

STATEMENT OF THE BUSINESS Transacted by the ..... Insurance Company of ....., State of ....., during the year 1889.

1. Date of organization.
2. Character of organization.
3. Date of charter or incorporation.
4. Is the charter perpetual or limited? If limited, state number of years.
5. By whom chartered.
6. Is the company transacting business under any special "act?" If yes, give date of "act."
7. Date began business.
8. Names of officers (a)—President; vice-president; secretary; assistant secretary; treasurer.
9. Does the company do a—
  - Fire business?
  - Ocean marine business?
  - Inland navigation and transportation business?
  - Life business?
  - Banking business?
10. If a fire business, does the company insure dwellings and contents and farm property only, or does it also insure mercantile and manufactory property?
11. Number of persons employed in the general administration of the company's business: Officers, bookkeepers, clerks, and other employees.
12. Number employed as agents or otherwise in procuring business.
13. Territory covered by the company in transacting business.

## JOINT STOCK CAPITAL.

14. Amount authorized.
15. Amount paid up in cash.

## GUARANTY FUND.

16. Amount authorized.
  17. Amount paid up in cash.
  18. Amount paid up in subscription notes.
- Total amount paid up.

## SCRIP AND CERTIFICATES.

19. Whole amount outstanding.
20. Amount ordered to be redeemed or canceled.
21. Amount outstanding not ordered to be redeemed.

## ASSETS.

22. Market value of real estate owned (less all incumbrances).
23. Stocks and bonds owned absolutely:
  - Par value.
  - Market value.

---

<sup>a</sup> Companies of foreign countries will give names of managers of United States branches.

## 740 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

24. Loans on bond and mortgage (first liens).
25. Loans on stocks, bonds, and other securities, held as collateral security for cash loaned:
  - Par value.
  - Market value.
26. Amount loaned.
27. All other loans made by the company and admitted<sup>1</sup> by the state department.
28. Total amount of loans.
29. Cash on hand in company's office.
30. Cash in banks (including amount in savings banks).
31. Total cash on hand.
- Interest due and not paid, and accrued but not due, viz:
  32. On loans on bond and mortgage.
  33. On stocks and bonds owned absolutely.
  34. On collateral loans.
  35. On cash deposited in banks.
  36. From all other sources.
  37. Total amount of interest due and unpaid.
38. Amount due and accrued for rents.
39. Premiums in due course of collection not more than three months due
40. Bills receivable, not matured, taken for fire risks (*a*).
41. Bills receivable, not matured, taken for marine risks.
42. Bills receivable, not matured, taken for inland risks.
43. Total bills receivable.
44. Amount of subscription notes on time not exceeding 12 months not yet due.
45. Amount of stock or deposit notes, exclusive of premium notes, held as capital of the company.
46. Amount of assessments due on perpetual policies secured by lien on property insured.
- Amount due and to become due from other companies, viz:
  47. On policies or contracts of reinsurance on account of losses paid.
  48. On account of outstanding losses not paid but included in liabilities.
  49. Total amount due from other companies.
50. Amount due from all other sources.
51. Total cash or available assets.
- Premium notes and other assets subject to assessments, viz:
  52. Amount of premium notes, face value, held by the company on policies still in force.
  53. Deduct assessments made thereon which has reduced their value.
  54. Net value of premium notes.
  55. Net amount of calls or assessments on premium or deposit notes held by the company which are due and collectible.
  56. Amount of contingent premiums authorized by the charter to pay losses.
  57. Amount of assessments authorized by charter to pay losses.
  58. Amount of policies in force subject to assessment where no premium note is given.
  59. Total amount of assets subject to assessment.
60. Gross amount of all assets that are admissible under state law.
61. Items not admissible under state law, but carried in books as good and collectible.
62. Total inadmissible assets.
63. Aggregate assets as carried on company's books.

### LIABILITIES.

64. Net amount of unpaid fire losses (*a*).
65. Net amount of unpaid marine losses.
66. Net amount of unpaid inland losses.
67. Total net amount of unpaid losses.
68. Gross premiums received and receivable upon all unexpired fire risks running one year or less from date of policy (*b*).
69. Unearned premiums—50 per cent.
70. Gross premiums received and receivable upon all unexpired fire risks running more than one year from date of policy (*b*).
71. Unearned premiums—pro rata.
72. Gross premiums (cash and bills) received and receivable upon all unexpired inland navigation and transportation risks.
73. Unearned premiums—50 per cent.

<sup>a</sup> Including tornado losses.

<sup>b</sup> Including tornado premiums.

74. Gross premiums (cash and bills) received and receivable upon all unexpired marine risks.
75. Total unearned premiums.
76. Amount reclaimable by the insured on perpetual policies, being 95 per cent of the deposit premium thereon.
77. Net premium reserve and all other liabilities, except capital under life insurance or any other special department.
78. Unearned balances of bills and notes taken in advance for premiums on open marine policies, or otherwise, returnable in settlement.
79. Unearned balances of bills and notes taken in advance for premiums on open inland policies, or otherwise, returnable in settlement.
80. Total unearned balances of bills and notes.
81. Principal unpaid on scrip or certificates of profits which have been authorized or ordered to be redeemed.
82. Interest on scrip, due and declared, remaining unpaid or uncalled for.
83. Amount due and to become due for borrowed money, including interest.
84. Amount due or to become due for return premiums.
85. Amount due or to become due for cash premiums returnable as profits or surplus on terminated policies.
86. Amount of rents due and accrued.
87. Amount due for salaries.
88. Amount due for commissions and brokerage and all other charges due and to become due to agents and brokers on premiums paid or in course of collection.
89. Amount due for office, agency, and all other expenses.
90. Amount due for taxes.
91. Amount of all other debts and demands against the company, absolute and contingent, due and to become due.
92. Total of all liabilities, except capital stock, guaranty fund, scrip, premium notes, or net surplus.
93. Policy-holders' surplus.
94. Joint stock capital paid up in cash.
95. Guaranty fund or capital.
96. Outstanding scrip not ordered redeemed.
97. Premium notes and all other resources received for policies and subject to assessment.
98. Surplus beyond all liabilities.

## CASH INCOME.

99. Net cash actually received for fire premiums.
100. Net cash actually received for marine premiums.
101. Net cash actually received for inland premiums.
102. Net cash actually received for tornado premiums.
103. Total cash premiums received.
104. Cash actually received for assessments or calls, or premium notes, bonds, obligations, or policies subject to assessment.
105. Cash received for interest premiums on perpetual deposits.
106. Total net cash income from premiums and assessments.
- Actual cash income during the year for interest:
  107. From loans on bond and mortgage.
  108. From stocks and bonds owned.
  109. From loans on collateral securities.
  110. From cash deposited in banks.
  111. From all other sources.
  112. Total cash income from interest.
113. Actual cash income during the year from rents.
114. Amount of cash income from all other sources.
115. Total cash income during the year.

## CASH RECEIPTS.

116. Cash received during the year from borrowed money.
117. Cash received during the year from home office (*a*).
118. Cash received during the year from deposit premiums on perpetual fire risks.
119. Cash received during the year from calls on capital.

---

*a* Companies of foreign countries.

## 742 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

- 120. Cash received during the year from increased capital.
- 121. Total cash receipts during the year.
- 122. Aggregate of cash income and receipts.

### OTHER RECEIPTS.

- 123. Bills and notes, remaining unpaid, received during the year for fire premiums<sup>(a)</sup>.
- 124. Bills and notes, remaining unpaid, received during the year for marine premiums.
- 125. Bills and notes, remaining unpaid, received during the year for inland premiums.
- 126. Total bills and notes received during the year.
- 127. Premium notes on policies in force, subject to assessments, received during the year.
- 128. Bonds, obligations, etc., on policies in force received during the year.
- 129. Policies subject to assessment received during the year.
- 130. Total premium notes, etc., received during the year.
- 131. All other receipts (other than cash) received during the year.
- 132. Aggregate amount of income and receipts during the year.

### CASH EXPENDITURES.

- Net amount paid in cash for losses:
  - 133. On term fire risks.
  - 134. On perpetual fire risks.
  - 135. Total fire losses.
  - 136. On tornado risks.
  - 137. On marine risks.
  - 138. On inland risks.
  - 139. Total net amount paid for losses.
- Dividends and profits actually paid in cash:
  - 140. To stockholders.
  - 141. For scrip or certificates of profits redeemed.
  - 142. For interest paid to scrip-holders.
  - 143. For amount returned to members who have discontinued their policies.
  - 144. For cash premiums returned as profits or surplus on terminated policies.
  - 145. Total amount paid for dividends and profits.
- Interest paid in cash:
  - 146. For borrowed money.
  - 147. To members on amounts deposited in banks as security for payment of losses, expenses, and membership fees.
  - 148. For .....
  - 149. For .....
  - 150. Total amount paid for interest.
- Amount paid in cash for salaries, fees, and compensation:
  - 151. To officers.
  - 152. To directors, attorneys, clerks, and all other employees.
  - 153. Total amount paid for salaries, fees, and compensation.
- Cash paid during the year for commissions and brokerages.
- Cash paid for taxes, etc.:
  - 155. For taxes on real estate.
  - 156. For national, state, and municipal taxes on premiums.
  - 157. For registry fees and agents' license.
  - 158. For assessments for benevolent associations.
  - 159. For fire departments and fire patrols.
  - 160. For all other sums imposed by state or municipal governments.
  - 161. Total paid for taxes other than on real estate.
  - 162. Whole amount paid for taxes.
- 163. Cash paid during the year for rent.
- 164. Cash paid during the year for agency expense, exclusive of commissions.
- 165. Cash paid during the year for office expense, exclusive of sums mentioned in previous items.
- 166. All other expenditures on account of expense.
- 167. Total amount of cash expenditures as previously specified.

---

<sup>a</sup> Including tornado premiums.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 743

168. Deposit premiums on perpetual risks returned during the year.  
 169. Amount returned to home office (a).  
 170. Aggregate amount of cash expended and returned.  
 171. Amount of assessments on premium notes which reduced their face value.  
 172. Amount of premium notes returned during the year.  
 173. Amount of premium notes held by the company on policies not in force.  
 174. Amount of policies subject to assessment terminated or marked off during the year.  
 175. Total reduction or expenditure in premium note account.  
 176. Aggregate amount of all expenditures during the year.

*Statement of risks written and renewed and premiums charged thereon during the years 1880 and 1889.*

## RISKS WRITTEN AND RENEWED DURING 1880.

	Fire.	Ocean marine.	Inland navigation and transportation.	Tornado.
177. Amount of risks written during the year 1880 (exclusive of perpetuals) .....				
178. Amount of gross premiums charged thereon (a) ..				
179. Amount of losses incurred during the year 1880 (exclusive of losses on perpetual risks) .....				
180. Amount of perpetual risks written during the year 1880 .....				
181. Amount of gross deposit premiums charged thereon .....				
182. Amount of interest on deposit premiums received during 1880 .....				
183. Amount of losses incurred on perpetual risks during 1880 .....				

## RISKS WRITTEN AND RENEWED DURING 1889.

	Fire.	Ocean marine.	Inland navigation and transportation.	Tornado.
184. Amount of risks written during the year 1889 (exclusive of perpetuals) .....				
185. Amount of gross premiums charged thereon (a) ..				
186. Amount of losses incurred during the year 1889 (exclusive of losses on perpetual risks) .....				
187. Amount of perpetual risks written during 1889 ..				
188. Amount of gross deposit premiums charged thereon .....				
189. Amount of interest on deposit premiums received during 1889 .....				
190. Amount of losses incurred on perpetual risks during 1889 .....				

(a) By gross premiums is meant the aggregate of all premiums written in the policies.

*Statement of risks in force and premiums charged thereon January 1, 1880, and December, 1889.*

Class of business.	January 1, 1880.			December 31, 1889.		
	Amount of risks in force.	Premiums charged.	Deposit premiums charged.	Amount of risks in force.	Premiums charged.	Deposit premiums charged.
Term fire business .....						
Perpetual fire business .....						
Ocean marine business .....						
Inland navigation and transportation business ..						
Tornado business .....						
Total .....						

(a) Companies of foreign countries.

# 744 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

*Statement of business transacted in the United States and foreign countries during the ten years 1880 to 1889, inclusive.*

## FIRE BUSINESS.

Years.	United States business.			Business in foreign countries.			Total business transacted.		
	Fire risks written.	Fire premiums received.	Fire losses paid.	Fire risks written.	Fire premiums received.	Fire losses paid.	Fire risks written.	Fire premiums received.	Fire losses paid.
1880.....									
1881.....									
1882.....									
1883.....									
1884.....									
1885.....									
1886.....									
1887.....									
1888.....									
1889.....									
Total.									

## OCEAN MARINE AND INLAND TRANSPORTATION BUSINESS.

Years.	United States business.			Business in foreign countries.			Total business transacted.		
	Marine and inland risks written.	Marine and inland premiums received.	Marine and inland losses paid.	Marine and inland risks written.	Marine and inland premiums received.	Marine and inland losses paid.	Marine and inland risks written.	Marine and inland premiums received.	Marine and inland losses paid.
1880.....									
1881.....									
1882.....									
1883.....									
1884.....									
1885.....									
1886.....									
1887.....									
1888.....									
1889.....									
Total.									

STATEMENT OF THE FIRE, MARINE, INLAND, AND TORNADO INSURANCE BUSINESS of the ..... Insurance Company of ..... State of ....., from 1880 to 1889, inclusive.

*Statement of assets, January 1, 1880.*

1. Market value of real estate owned (less all incumbrances).
2. Market value of stocks, bonds, etc., owned.
3. Amount of collateral loans.
4. Cash on hand.
5. Interest due and accrued on stocks, bonds, and collateral loans.
6. Rents due and accrued.
7. Premiums in due course of collection.
8. Bills receivable, not matured, taken for premiums.
9. All other assets not above specified.
10. Aggregate amount of all actual available assets.
11. Premium notes and all other resources received on policies in force and subject to assessment.
12. Total amount of all ledger assets.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 745

## Statement of liabilities, January 1, 1880.

13. Net amount of all unpaid losses.
14. Total amount of unearned premiums.
15. Amount retainable by the assured on perpetual policies.
16. Due and accrued for salaries, rent, and all other expense of management.
17. Net premium reserve, and all other liabilities, except capital, under life insurance or other special departments.
18. Principal unpaid on scrip or certificates of profit ordered to be redeemed.
19. Interest on scrip due and declared remaining unpaid.
20. Cash dividends to stockholders remaining unpaid.
21. Interest due and declared remaining unpaid.
22. Due and to become due for borrowed money.
23. All other demands against the company due and to become due.
24. Total amount of all liabilities, except capital, outstanding scrip, and premium notes.
25. Policy-holders' surplus.
26. Joint stock capital paid up in cash.
27. Guarantee fund or capital.
28. Outstanding scrip.
29. Premium notes and all other resources received subject to assessment.
30. Surplus beyond all liabilities.

## Income and receipts from 1880 to 1889, inclusive.

Years.	Premium income.						Income from investments.	
	Term business.				Perpetual business.			
	Net cash received on fire policies for premiums, assessments, or otherwise.	Net cash received for inland navigation and transportation premiums.	Net cash received for ocean marine premiums.	Net cash received for tornado premiums.	Deposit premiums received on perpetual fire risks.	Interest premiums received on perpetual deposits.	Interest on stocks, bonds, and all other investments.	Received for rents.
	31	32	33	34	35	36	37	38
1880.....								
1881.....								
1882.....								
1883.....								
1884.....								
1885.....								
1886.....								
1887.....								
1888.....								
1889.....								
Total.								

Years.	Investments—Continued.	Received on capital.		Companies of foreign countries.	Cash received from all other sources.	Total cash received during the year.	Premium notes and all other resources subject to assessment received during the year.	Total income and receipts during the year.
	Total income from investments.	Calls on capital.	Increased capital.	Received from home office.				
	39	40	41	42	43	44	45	46
1880.....								
1881.....								
1882.....								
1883.....								
1884.....								
1885.....								
1886.....								
1887.....								
1888.....								
1889.....								
Total.								

## 746 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

*Expenditures from 1880 to 1889, inclusive.*

Years.	Net cash paid for losses.						Cash paid for dividends and profits.	
	Fire losses.			Inland navigation and transportation losses paid.	Ocean marine losses paid.	Tornado losses paid.	Stockholders' dividends.	Scrip or certificates of profits redeemed in cash.
	On term risks.	On perpetual risks.	Total fire losses paid.					
	47	48	49	50	51	52	53	54
1880.....								
1881.....								
1882.....								
1883.....								
1884.....								
1885.....								
1886.....								
1887.....								
1888.....								
1889.....								
Total.								

Years.	Dividends and profits—Continued.		Cash returned to members who have discontinued their policies.	Cash paid for expenses of management.				
	Interest paid to scrip holders.	Total cash paid for dividends or profits.		Commissions and brokerage.	Salaries, fees, and all other charges of officers and employees.	Taxes on premiums, registry fees, licenses, and assessments, etc.	All other expenses of management.	Total paid for expense of management.
	55	56	57	58	59	60	61	62
1880.....								
1881.....								
1882.....								
1883.....								
1884.....								
1885.....								
1886.....								
1887.....								
1888.....								
1889.....								
Total.								

Years.	Taxes paid on real estate.	Deposit premiums on perpetual risks returned.	Companies of foreign countries.	All other expenditures in cash.	Total expenditures in cash during the year.	Amount of reduction in capital.	Premium notes and all other resources subject to assessment cancelled or returned.	Total expenditures during the year.
			Returned to home office.					
		63	64	65	66	67	68	69
1880.....								
1881.....								
1882.....								
1883.....								
1884.....								
1885.....								
1886.....								
1887.....								
1888.....								
1889.....								
Total...								

*Risks written and premiums charged from 1880 to 1889, inclusive.*

Years.	Fire risks. (Not including perpetu- als.)		Inland navigation and transportation risks.		Ocean marine risks.		Tornado risks.	
	Written and renewed. 71	Premiums charged thereon. 72	Written and renewed. 73	Premiums charged thereon. 74	Written and renewed. 75	Premiums charged thereon. 76	Written and renewed. 77	Premiums charged thereon. 78
1880.....								
1881.....								
1882.....								
1883.....								
1884.....								
1885.....								
1886.....								
1887.....								
1888.....								
1889.....								
Total...								

*Recapitulation of the fire business, showing the risks written and premiums charged for one, two, three, four, and five years, from January 1, 1880, to December 31, 1889.*

## CLASS 1.

Years.	One year or less.		Two years.		Three years.	
	Amount covered. 79	Premiums charged. 80	Amount covered. 81	Premiums charged. 82	Amount covered. 83	Premiums charged. 84
1880.....						
1881.....						
1882.....						
1883.....						
1884.....						
1885.....						
1886.....						
1887.....						
1888.....						
1889.....						
Total...						

Years.	Four years.		Five years or over.		Totals.	
	Amount covered. 85	Premiums charged. 86	Amount covered. 87	Premiums charged. 88	Amount covered. 89	Premiums charged. 90
1880.....						
1881.....						
1882.....						
1883.....						
1884.....						
1885.....						
1886.....						
1887.....						
1888.....						
1889.....						
Total...						

# 748 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## *Statement of the perpetual fire business from 1880 to 1889, inclusive.*

91. Perpetual fire risks in force January 1, 1880.  
 92. Total deposit premiums thereon.  
 93. Amount of deposit reclaimable by the assured January 1, 1880.  
 94. Amount of unpaid losses on perpetual risks January 1, 1880.

Years.	Amount written during the year.	Receipts and income.				Expenditures.		
		Total deposit premiums received.	Original or bonus premiums received during the year.	Assessments received during the year.	Interest premiums received during the year.	Losses paid during the year.	Interest on losses paid to tenants for life.	Deposit premiums returned during the year.
	95	96	97	98	99	100	101	102
1880.....								
1881.....								
1882.....								
1883.....								
1884.....								
1885.....								
1886.....								
1887.....								
1888.....								
1889.....								
Total...								

103. Perpetual fire risks in force December 31, 1889.  
 104. Total deposit premiums thereon.  
 105. Amount of deposit reclaimable by the assured December 31, 1889.  
 106. Amount of unpaid losses on perpetual risks December 31, 1889.

## *Statement of the participating business from 1880 to 1889, inclusive.*

107. Amount of participating risks in force January 1, 1880.  
 108. Amount of premiums charged thereon.  
 109. Amount of unpaid losses on participating risks January 1, 1880.  
 110. Limit of scrip accumulation before redemption.  
 111. Amount of scrip outstanding and deliverable January 1, 1880.  
 112. Amount of participating "special reserve fund" January 1, 1880.

Years.	Amount written or renewed during the year.	Premiums.		Losses on participating risks paid in cash.	Amount of earned participating premiums on which dividends were declared.
		Premiums charged thereon.	Net premiums received in cash.		
	113	114	115	116	117
1880.....					
1881.....					
1882.....					
1883.....					
1884.....					
1885.....					
1886.....					
1887.....					
1888.....					
1889.....					
Total.....					

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 749

## Statement of the participating business from 1880 to 1889, inclusive—Continued.

Years.	Dividends.		Scrip.		
	Dividends paid in scrip. 118	Dividends carried to "special reserve fund." 119	Called in, canceled, and forfeited. 120	Redeemed in cash. 121	Interest paid on scrip. 122
1880.....					
1881.....					
1882.....					
1883.....					
1884.....					
1885.....					
1886.....					
1887.....					
1888.....					
1889.....					
Total .....					

123. Amount of participating risks in force December 31, 1889.  
 124. Amount of premiums charged thereon.  
 125. Amount of unpaid losses on participating risks December 31, 1889.  
 126. Limit of scrip accumulation before redemption.  
 127. Amount of scrip outstanding and deliverable December 31, 1889.  
 128. Amount of participating "special reserve fund" December 31, 1889.

## Statement of the installment business from 1880 to 1889, inclusive.

129. Amount of installment risks in force January 1, 1880.  
 130. Amount of installment notes owned and held on risks in force January 1, 1880.  
 131. Amount of unpaid losses on installment risks January 1, 1880.

Years.	Written or renewed during the year. 132	Premiums.			Expenditures.	
		Premiums charged thereon. 133	Net premiums received in cash. 134	Amount of installment notes taken. 135	Losses on installment risks paid in cash. 136	Installment notes returned, canceled, or forfeited. 137
1880.....						
1881.....						
1882.....						
1883.....						
1884.....						
1885.....						
1886.....						
1887.....						
1888.....						
1889.....						
Total .....						

138. Amount of installment risks in force December 31, 1889.  
 139. Amount of installment notes owned and held on risks in force December 31, 1889.  
 140. Amount of unpaid losses on installment risks December 31, 1889.

## 750 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

*Premium note account from 1880 to 1889, inclusive.*

141. Net amount of premium notes and other resources subject to assessment on hand January 1, 1880.

Years.	Premium notes and other resources subject to assessment received during the year. 142
1880.....	
1881.....	
1882.....	
1883.....	
1884.....	
1885.....	
1886.....	
1887.....	
1888.....	
1889.....	

143. Total premium notes, etc., received.  
144. Aggregate of amount on hand and received.

Years.	Expenditures.		
	Total amount of assessments during the year. 145	Premium notes and other resources subject to assessment.	
		Returned during the year. 146	Held by the company on policies not in force. 147
1880.....			
1881.....			
1882.....			
1883.....			
1884.....			
1885.....			
1886.....			
1887.....			
1888.....			
1889.....			

148. Total expenditures.  
149. Net amount in force December 31, 1889.

*Statement of assets, December 31, 1889.*

150. Market value of real estate owned (less all incumbrances).  
151. Market value of stocks, bonds, etc., owned.  
152. Amount of collateral loans.  
153. Cash on hand.  
154. Interest due and accrued on stocks, bonds, and collateral loans.  
155. Rents due and accrued.  
156. Premiums in due course of collection.  
157. Bill receivable, not matured, taken for premiums.  
158. All other assets not above specified.  
159. Aggregate amount of all actual available assets.  
160. Premium notes, and all other resources received on policies in force and subject to assessment.  
161. Total amount of all ledger assets.

*Statement of liabilities, December 31, 1889.*

162. Net amount of all unpaid losses.  
163. Total amount of unearned premiums.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 751

164. Amount reclaimable by the assured on perpetual policies.
165. Due and accrued for salaries, rent, and all other expense of management.
166. Net premium reserve, and all other liabilities, except capital, under life insurance or other special departments.
167. Principal unpaid on script or certificates of profits ordered to be redeemed.
168. Interest on script due and declared remaining unpaid.
169. Cash dividends to stockholders remaining unpaid.
170. Interest due and declared remaining unpaid.
171. Due and to become due for borrowed money.
172. All other demands against the company due and to become due.
173. Total amount of all liabilities, except capital, outstanding scrip, and premium notes.
174. Policy-holders' surplus.
175. Joint stock capital paid up in cash.
176. Guaranty fund on capital.
177. Outstanding scrip.
178. Premium notes and all other resources received on policies subject to assessment.
179. Surplus beyond all liabilities.

REPORT OF THE.....INSURANCE COMPANY OF....., State of....., showing the business done in each State and Territory from 1880 to 1889, inclusive.

STATEMENT OF THE FIRE, MARINE, INLAND, AND TORNADO INSURANCE BUSINESS DONE IN THE STATE OF ..... FOR THE YEARS 1880 TO 1889, INCLUSIVE.

[Companies will include all business, whether written through established agencies, brokers, or otherwise.]

STATEMENT FOR JANUARY 1, 1880.

Amount deposited with the state for the protection of policy holders in the state:

Inquiries.	Fire.	Ocean marine.	Inland navigation and transportation.	Tornado.
Amount of risks in force (exclusive of perpetuals) in the state, January 1, 1880.....				
Amount of gross premiums charged thereon (a).....				
Amount of losses incurred (exclusive of losses on perpetual fire risks) in the state during 1880.....				
Amount of perpetual fire risks in force in the state, January 1, 1880.....				
Amount of gross deposit premiums charged thereon.....				
Amount of losses incurred on perpetual fire risks in the state during 1880.....				

<sup>a</sup> By gross premiums is meant the aggregate of all premiums written in the policies on risks in force.

STATEMENT FOR DECEMBER 31, 1889.

Amount deposited with the state for the protection of policy holders in the state:

Inquiries.	Fire.	Ocean marine.	Inland navigation and transportation.	Tornado.
Amount of risks in force (exclusive of perpetuals) in the state, December 31, 1889.....				
Amount of gross premiums charged thereon (a).....				
Amount of losses incurred (exclusive of losses on perpetual fire risks) in the state during 1889.....				
Amount of perpetual fire risks in force in the state, December 31, 1889.....				
Amount of gross deposit premiums charged thereon.....				
Amount of losses incurred on perpetual fire risks in the state during 1889.....				

<sup>a</sup> By gross premiums is meant the aggregate of all premiums written in the policies on risks in force.

752 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

STATEMENT OF THE FIRE, MARINE, INLAND, AND TORNADO INSURANCE BUSINESS DONE  
IN THE STATE OF ..... FOR THE YEARS 1880 TO 1889, INCLUSIVE—Continued.

[Companies will include all business, whether written through established agencies, brokers, or otherwise.]

Years.	Fire business. (Exclusive of perpetuals.)			Perpetual fire business.				Ocean marine business.		
	Risks written and re- newed.	Premi- ums and assess- ments re- ceived in cash.	Losses paid in cash.	Risks writ- ten.	Total deposits received in cash.	Interest premiums and assess- ments or quotas re- ceived in cash.	Losses paid in cash.	Risks written and re- newed.	Premi- ums re- ceived in cash.	Losses paid in cash.
1880.....										
1881.....										
1882.....										
1883.....										
1884.....										
1885.....										
1886.....										
1887.....										
1888.....										
1889.....										
Total ..										

Years.	Inland navigation and transportation business.			Tornado business.			Taxes paid in the state.	
	Risks written and renewed.	Premiums received in cash.	Losses paid in cash.	Risks written and renewed.	Premiums and assess- ments re- ceived in cash.	Losses paid in cash.	On real estate.	On premiums and for fees, li- censes, benev- olent societies, fire depart- ment, etc.
1880.....								
1881.....								
1882.....								
1883.....								
1884.....								
1885.....								
1886.....								
1887.....								
1888.....								
1889.....								
Total ..								

[The preceding tables are repeated nine times in the schedule.]

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 753

## STATEMENT OF THE FIRE AND TORNADO INSURANCE BUSINESS of the ..... Insurance Company of ..... State of ....., from 1880 to 1889, inclusive.

[Inquiries numbered 1 to 13, inclusive, in the first schedule given for 1890, for fire, marine, inland, and tornado insurance, are common to this schedule and are not here reproduced.]

*Statement of financial condition on the 1st day of January, 1880, and the 31st day of December, 1889.*

	Jan. 1, 1880.	Dec. 31, 1889.
14. Whole number of members .....		
ASSETS.		
15. Value of real estate owned (less all incumbrances) .....		
16. Market value of all stocks and bonds owned absolutely .....		
17. Amount of loans on bonds and mortgages .....		
18. Amount of loans on collateral securities .....		
19. Amount of cash on hand and in bank .....		
20. Amount of cash premiums in course of collection .....		
21. Amount of assessments due and unpaid .....		
22. Amount due for fees and percentages on policies in force .....		
23. Amount of all other cash assets .....		
24. Amount of premium notes held by the company on policies in force .....		
25. Amount of insurance affected by policies in force, where no premium notes were taken .....		
26. All other assets not previously mentioned .....		
LIABILITIES.		
27. Amount due for unpaid fire losses .....		
28. Amount due for unpaid losses other than those on fire risks .....		
29. Amount of all other liabilities .....		
RISKS IN FORCE.		
30. Amount of fire risks in force .....		
31. Amount of risks in force other than fire, viz:		
[1 blank line.]		

*Statement of risks written, receipts and income for the ten years 1880 to 1889, inclusive.*

Year.	Number of members added each year.	Risks.		Cash income.			Premium notes received during the year.
		Amount written on which cash or premium notes were received.	Amount written where policy is subject to assessment.	Premiums and assessments received in cash during the year.	Cash received from all other sources during the year, including borrowed money not returned.	Total cash received during the year.	
	32	33	34	35	36	37	38
1880.....							
1881.....							
1882.....							
1883.....							
1884.....							
1885.....							
1886.....							
1887.....							
1888.....							
1889.....							
Total..							

*Statement of risks written, receipts and income, etc.—Continued.*

Year.	Amount cash paid for losses during the year. 39	Amount returned to policy holders as dividend or profit during the year. 40	Amount paid for taxes during the year, exclusive of taxes on real estate. 41	Amount paid for officers' salaries during the year. 42	Amount paid for interest on borrowed money. 43	All other expenditures in cash during the year. 44	Total expenditures in cash during the year. 45
1880.....							
1881.....							
1882.....							
1883.....							
1884.....							
1885.....							
1886.....							
1887.....							
1888.....							
1889.....							
Total ..							

## FIRE DEPARTMENTS AND WATER SUPPLY.

STATEMENT for the City (or Town) of ....., State of ....., for the year 1889.

1. Is it a town, village, or incorporated city?
2. What is its total area (square acres)?
3. What is the area of the fire limit (square acres)?  
Are the streets lighted—
4. With gas?
5. With petroleum?
6. With electricity?
7. Otherwise?
8. What is the average width of the streets (feet)?  
Has it an ordinance regulating—
9. The sale and use of fireworks and firecrackers?
10. The sale and use of petroleum?
11. For investigating the causes of fires?

## BUILDINGS.

12. Has it an ordinance regulating the construction of buildings?  
If yes, please state—
13. The minimum thickness required for bearing walls (inches).
14. The maximum width allowed without division walls (feet).
15. Whether shingle or wooden roofs are permitted.

## MERCANTILE BUILDINGS.

16. What building material is principally used in their construction?
17. What is the usual height (stories)?
18. Have the business blocks intersecting lanes or alleys?

## DWELLINGS.

19. What building material is principally used in their construction?
20. What is the usual height?
21. Are they generally built in rows or detached?

## ORGANIZED FIRE DEPARTMENT.

## Equipment:

22. Number of steam engines on hand.  
Number in use; number of spare engines.
23. Number of hand engines on hand.  
Number in use; number of spare engines.
24. Number of chemical engines (on wheels) on hand.  
Number in use; number of spare engines.

## Equipment—Continued.

25. Number of chemical extinguishers on hand and in use.
26. Number of hook-and-ladder trucks on hand.  
Number in use; number of spare trucks.
27. Number of hose carriages on hand.  
Number in use; number of spare hose carriages.
28. Number of fire boats on hand.  
Number in use; number of spare fire boats.
29. Number of water towers on hand and in use.
30. Number of aerial trucks on hand.  
Number in use; number of spare aerial trucks.
31. Number of wrecking trucks on hand and in use.
32. Number of fuel wagons on hand.  
Number in use; number of spare wagons.
33. Number of horses on hand.  
Number in use; number of spare horses.
34. Number and kind of any other apparatus in use for extinguishing fires.

Hose on hand.	Number of feet in good condition.	Number of feet in poor condition.
35. Quantity of serviceable rubber hose on hand.....		
36. Quantity of serviceable cotton hose on hand.....		
37. Quantity of serviceable linen hose on hand.....		
38. Quantity of serviceable leather hose on hand.....		

39. Are the Siamese couplings used?
40. Have the hose couplings a uniform size thread?
41. Value of fire department equipment.  
Buildings:
  42. Number owned and in use.
  43. Estimated value of those owned.
- Membership of the fire department:
  44. Whole number of members.
  45. Number paid for full time.
  46. Number paid for part time.
  47. Number of volunteers.
48. Methods or system used for giving alarms of fire.  
If by electric alarm system, state—
  49. Name of system used.
  50. Number of street alarm boxes.
  51. Number of special alarm boxes.
  52. Number of private alarm boxes.
53. What was the total expense for maintaining the fire department during year 1889?

## UNORGANIZED FIRE DEPARTMENT. (a)

## Equipment:

54. Number of steam engines on hand and in use.
55. Number of hand engines on hand and in use.
56. Number of chemical engines (on wheels) on hand and in use.
57. Number of chemical extinguishers on hand and in use.
58. Number of hook-and-ladder trucks on hand and in use.
59. Number of hose carriages on hand and in use.
60. Number of horses owned and in use.
61. Number and kind of any other apparatus in use for extinguishing fires.
62. Quantity of serviceable hose on hand.
63. Are the Siamese couplings used?
64. Have the hose couplings a uniform size thread?
- Buildings:
  65. Number owned and in use.
  66. Estimated value of those owned.

a Places not having an organized fire department, but means of some kind for extinguishing fires, should be included.

756 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Membership of the fire department:

- 67. Whole number of members.
- 68. Number paid for full time.
- 69. Number paid for part time.
- 70. Number of volunteers.
- 71. Methods or system used for giving alarms of fire.
- If by electric alarm system, state—
- 72. Name of system used.
- 73. Number of street alarm boxes.
- 74. Number of special alarm boxes.
- 75. Number of private alarm boxes.
- 76. What was the total expense for maintaining the fire department during year 1889?

FIRE PATROL, SALVAGE CORPS, ETC.

Fire patrol:

- 77. Is it incorporated?
- 78. By whom supported?
- 79. Number of permanent members.
- 80. Number of auxiliary members.
- 81. Number of wagons owned and in use.
- 82. Number of horses owned and in use.
- 83. Number of buildings owned and occupied.
- 84. Estimated value of buildings owned.
- 85. Total value of apparatus, supplies, etc.
- 86. Total expense of maintaining the fire patrol during the year 1889.

Salvage corps:

- 87. Is it incorporated?
- 88. By whom supported?
- 89. Number of permanent members.
- 90. Number of auxiliary members.
- 91. Number of wagons owned and in use.
- 92. Number of horses owned and in use.
- 93. Number of buildings owned and occupied.
- 94. Estimated value of buildings owned.
- 95. Total value of apparatus, supplies, etc.
- 96. Total expense of maintaining the salvage corps during the year 1889.

Fire protecting society:

- 97. Is it incorporated?
- 98. By whom supported?
- 99. Number of permanent members.
- 100. Number of auxiliary members.
- 101. Number of wagons owned and in use.
- 102. Number of horses owned and in use.
- 103. Number of buildings owned and occupied.
- 104. Estimated value of buildings owned.
- 105. Total value of apparatus, supplies, etc.
- 106. Total expense of maintaining the fire protecting society during the year 1889.

WATER SUPPLY.

Reservoirs:

- 107. Number in use.
- 108. How are they supplied with water?
- 109. Their total capacity per diem (gallons).

Cisterns:

- 110. Number in use.
- 111. How are they supplied with water?
- 112. Their total capacity per diem (gallons).

Street mains and supply pipes:

- 113. Number of miles in use.
- 114. Diameter of the largest main or pipe.
- 115. Diameter of the smallest main or pipe.
- 116. Number of fire plugs or hydrants in use.
- 117. Amount of water pressure from hydrants (pounds).
- 118. Average consumption of water per diem (gallons).
- By what process or system is the water distributed:
- 119. Direct pumping.

By what process or system is the water distributed—Continued.

- 120. Gravity.
- 121. Holly system.
- 122. Or otherwise.
- 123. Capacity of stand.
- 124. Is the water filtered?
- 125. If yes, what system of filtration is used?
- 126. Total expense of maintaining the water department during the year 1889.
- 127. Are the waterworks owned by the city or by a company?
- 128. What was the cost of construction of the waterworks?

#### ESTIMATED VALUE OF DWELLINGS AND OTHER BUILDINGS.

[Circular.]

- Name of place.
- Name of county.
- Name of state.
- Number of dwellings in your place.
- Estimated value of the same.
- Number of buildings other than dwellings in your place.
- Estimated value of the same.

#### LIFE INSURANCE.

##### SCHEDULE A.

STATEMENT of the business transacted by the ..... Insurance Company of .....,  
State of ....., during the year 1889.

##### I.—Capital stock account.

- 1. Amount of capital stock paid up in cash.
- 2. Amount of capital subscribed, but unpaid.
- 3. Amount of net or ledger assets December 31, 1888 (*a*).
- 4. Decrease of capital during 1889 (*b*).
- Extended.

##### II.—Income during the year 1889.

##### PREMIUM INCOME.

- 5. Cash received for premiums (except as per paragraph 7) without deductions for commission or other expenses.
- 6. Premium notes, loans, or liens taken in part payment for premiums (except as per paragraph 7).
- 7. Premiums paid by dividends, including reconverted additions, and by surrendered policies.
- 8. Cash received for annuities.
- 9. Total premium income.
- 10. Deduct amount of premiums paid to other companies for reinsurance on policies in this company, less dividends thereon.
- 11. Total net premium income.

##### INTEREST INCOME.

- 12. Cash received for interest upon mortgage loans.
- 13. Cash received for interest on bonds owned, and dividends on stock.
- 14. Cash received for interest on premium notes, loans, or liens.
- 15. Cash received for interest on other debts due the company.
- 16. Cash received as discount on claims paid in advance.
- 17. Cash received for rents for use of company's property.

*a* Comprising balance of all ledger accounts counted as assets.

*b* The decrease of capital, if any, should be noted, and the net ledger assets, so diminished, extended.

758 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

18. Cash received for profits on bonds, stocks, and real estate actually sold.
19. Interest income from all other sources.
20. Total interest income.
21. Cash and notes other than premiums received from other companies for assuming or reinsuring their risks.
22. Cash received from all other sources.
23. Amount received from increased capital.
24. Total income.
25. Total carried forward.

III.—Disbursements during the year 1889.

LOSSES AND MATURED ENDOWMENTS.

26. Cash paid for losses and additions.
27. Premium notes, loans, or liens used in payment of the same.
28. Cash paid for matured endowments and additions.
29. Premium notes, loans, or liens used in payment of same.
30. Total.
31. Deduct amount received from other companies for losses or claims on policies reinsured, of which \$..... is for matured endowments.
32. Total net amount actually paid for losses and matured endowments.

PAID TO POLICY HOLDERS.

33. Cash paid to annuitants.
34. Cash paid for surrendered policies.
35. Premium notes, loans, or liens used in purchase of surrendered policies and voided by lapse.
36. Cash surrendered values, including reconverted additions applied in payment of premiums.
37. Cash dividends paid to policy holders, including dividends applied in payment of premiums.
38. Premium notes, loans, or liens used in payment of dividends to policy holders.
39. Total paid policy holders.

OTHER DISBURSEMENTS.

40. Cash paid stockholders for interest or dividends.
41. Cash paid for commissions to agents.
42. Cash paid for salaries and traveling expenses of managers of agencies, and general, special, and local agents.
43. Cash paid for medical examiners' fees.
44. Cash paid for salaries and other compensation of officers and other office employees.
45. Cash paid for taxes, licenses, fines, and fees.
46. Cash paid for rent (less amounts received under sublease).
47. Cash paid for commuting commissions.
48. Cash advanced to officers and agents, to be repaid out of future salaries or commissions.
49. Cash paid for furniture and fixtures, and safes for home and agency offices.
50. Cash paid for advertising.
51. Cash paid for the following items, viz:  
[2 blank lines.]
52. Total disbursements.
53. Balance.

IV.—Assets December 31, 1889.

(As per ledger accounts).

54. Cost value of real estate exclusive of all incumbrances. (a)
55. Loans on bonds and mortgages (first lien) on real estate.
56. Loans secured by pledge of bonds, stocks, or other marketable collaterals.

---

<sup>a</sup> If the cash value of real estate is less than cost, the amount of the depreciation should be deducted after the balance "(63) Total net or ledger assets" is given.

57. Loans made in cash to policy holders on this company's policies assigned as collateral, the reserve on each policy being in excess of the loan thereon.
58. Premium notes, loans, or liens on policies in force, the reserve on each policy being in excess of all indebtedness thereon. <sup>(a)</sup>
59. Cost value of bonds and stocks owned absolutely. <sup>(b)</sup>
60. Cash in company's office and deposited in banks.
61. Bills receivable.
62. Agents' ledger balances.
63. Total net or ledger assets.
64. Deduct depreciation from cost of assets to bring same to market value.
65. Total net or ledger assets, less depreciation.

OTHER ASSETS.

66. Interest due and accrued on bonds, mortgages, stocks, collaterals, loans, etc.
67. Interest due and accrued on premium notes, loans, or liens.
68. Rents due or accrued on company's property or leased.
69. Market value of real estate over cost.
70. Market value of bonds and stocks over cost.
71. Due from other companies for losses or claims on policies of this company reinsured.
72. Gross premiums due and unreported on policies in force December 31, 1889.
73. Gross deferred premiums on policies in force December 31, 1889.
74. Total uncollected and deferred premiums.
75. Deduct the loading on above gross amount.
76. Net amount of uncollected and deferred premiums.
77. Furniture, fixtures, and safes.
78. Total net assets, as per the books of the company.

V.—Liabilities December 31, 1889.

79. Net present value of all the outstanding policies in force on the 31st day of December, 1889, computed according to The Actuaries' Table of Mortality, with 4 per cent interest.
80. Deduct net value of risks of this company reinsured in other solvent companies.
81. Net reserve.

POLICY CLAIMS.

82. Premium obligations in excess of the net value of their policies.
83. Claims for death losses due and unpaid.
84. Claims for matured endowments due and unpaid.
85. Claims for death losses and matured endowments in process of adjustment or adjusted and not due.
86. Claims for death losses and other policy claims resisted by the company.
87. Amounts due and unpaid on annuity claims.
88. Total policy claims.

OTHER LIABILITIES.

89. Amount of all unpaid dividends of surplus or other profits due policy holders.
90. Amount of unpaid dividends to stockholders.
91. Amount of national, state, or other taxes due.
92. Amount due on account of salaries, rents, and office expense.
93. Amount due by the company for borrowed money, including interest due or accrued.
94. Amount due to officers or others for advances on account of expenses or claims.
95. Amount of any other liability of the company.
96. Liabilities on account of policy holders.
97. Gross surplus on account of policy holders.
98. Total liabilities.

<sup>a</sup> This item to include only premium notes, loans, or liens taken for part payment of premiums.

<sup>b</sup> If the cash value of bonds and stocks is less than cost, the amount of the depreciation should be deducted after the balance "(63) Total net or ledger assets" is given.

760 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

- 99. Estimated surplus accrued on tontine or other policies, the profits of which are especially reserved for that class of policies.
- 100. Estimated surplus accrued on all policies.

*Assets not admitted.*

- 101. Loans on company's own stock.
- 102. Company's own stock.
- 103. Judgments.
- 104. Furniture, fixtures, and safes.
- 105. Commuted commissions.
- 106. Cash advanced to or in hands of officers or agents.
- 107. Agents' balances.
- 108. Loans on personal security, indorsed or not indorsed.
- 109. Bills receivable.
- 110. Supplies, printed matter, and stationery.

VI.—*Premium note account for the year 1889.*

- 111. Premium notes, loans, or liens on hand December 31, 1888.
- 112. Premium notes, loans, or liens received during the year.
- 113. Total.
- 114. Deductions during the year, as follows:
  - 114. Amount notes, loans, or liens used in payment of losses and claims.
  - 115. Amount notes, loans, or liens used in purchase of surrendered policies and voided by lapse.
  - 116. Amount notes, loans, or liens used in payment of dividends to policy holders.
  - 117. Amount notes, loans, or liens redeemed by maker in cash.
  - 118. Total reductions of premium note account.
  - 119. Balance note assets at end of the year.
- 120. State the number of persons employed in the general administration or conduct of the business as officers, clerks, or otherwise.
- 121. State the number of persons employed as agents for procuring business.
- 122. State the number (ascertained or estimated) of persons employed under such agents in soliciting and procuring business.

SCHEDULE B.

STATEMENT of the business transacted by the ..... Insurance Company of ....., State of ....., from 1880 to 1889, inclusive.

*Statement of assets January 1, 1880.*

[Inquiries numbered 54 to 76, inclusive, under the heading of "Assets," in Schedule A, are common to this schedule and are not here reproduced.]

- 24. Total assets, as per books of the company.

ITEMS NOT ADMITTED.

- 25. Loans on company's own stock, company's own stock, furniture, fixtures, etc., commuted commissions, agents' balances, loans on personal security, and all other items not admitted under state laws.
- 26. Total assets (less items not admitted).

*Statement of liabilities January 1, 1880.*

[Inquiries numbered 79 to 100, inclusive, under the heading of "Liabilities" in Schedule A, are common to this schedule and are not here reproduced.]

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 761

*Income during the ten years 1880 to 1889, inclusive.*

Year.	Premium income.						
	Premiums received in cash without any deductions.	Premium notes, loans, or liens taken in part payment for premiums.	Premiums paid by dividends, including additions, and by surrendered insurance.	Cash received for annuities.	Total premium income without any deductions.	Deduct amount paid for reinsurance.	Total net premium income.
	49	50	51	52	53	54	55
1880.....							
1881.....							
1882.....							
1883.....							
1884.....							
1885.....							
1886.....							
1887.....							
1888.....							
1889.....							
Total..							

Year.	Interest and profit income.				Cash received from increased capital.	Cash received from all other sources.	Total income.
	Interest, dividends, and discounts received from all sources.	Received from rent of company's property.	Profit on bonds, stocks, and real estate sold.	Total interest and profit income.			
	56	57	58	59	60	61	62
1880.....							
1881.....							
1882.....							
1883.....							
1884.....							
1885.....							
1886.....							
1887.....							
1888.....							
1889.....							
Total..							

*Disbursements during the ten years 1880 to 1889, inclusive.*

Year.	Losses and additions.		Matured endowments and additions.		Total amount paid for losses and additions, and matured endowments and additions.	Deduct amount received from other companies for losses or claims on policies re-insured.	Total net amount paid for losses and matured endowments.
	Amount paid in cash.	Amount paid in premium notes, loans, or liens.	Amount paid in cash.	Amount paid in premium notes, loans, or liens.			
	63	64	65	66	67	68	69
1880.....							
1881.....							
1882.....							
1883.....							
1884.....							
1885.....							
1886.....							
1887.....							
1888.....							
1889.....							
Total..							

162 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

*Disbursements during the ten years 1880 to 1889 inclusive—Continued.*

Year.	Paid to policy holders.						
	Cash paid to annuitants.	Cash paid for surrendered policies.	Premium notes, loans, or liens used in purchase of surrendered policies and voided by lapse.	Cash surrendered values, including re-converted additions applied in payment of the premiums.	Cash dividends paid to policy holders, including dividends applied in payment of premiums.	Premium notes, loans, or liens used in payment of dividends to policy holders.	Total paid to policy holders.
	70	71	72	73	74	75	76
1880.....							
1881.....							
1882.....							
1883.....							
1884.....							
1885.....							
1886.....							
1887.....							
1888.....							
1889.....							
Total..							

Year.	Interest or dividends paid in cash to stockholders.	Commissions paid to agents in cash.	Salaries and expenses of managers and agents, and medical examiners' fees paid in cash.	Salaries and compensation of officers and other office employees.		Cash paid for taxes, licenses, fines, and fees.	Cash paid for rent (less amount received under sub-lease).
				Amount paid to officers in cash.	Amount paid to office employees in cash.		
	77	78	79	80	81	82	83
1880.....							
1881.....							
1882.....							
1883.....							
1884.....							
1885.....							
1886.....							
1887.....							
1888.....							
1889.....							
Total..							

Year.	Cash paid for commuted commissions.	Cash advanced to officers and agents, to be repaid out of future salaries or commissions.	Cash paid for office furniture, fixtures, and safes.	Cash paid for advertising.	Cash paid for all other items not previously mentioned.	Amount of decrease in capital.	Total amount cash at other; penditi
	84	85	86	87	88	89	90
1880.....							
1881.....							
1882.....							
1883.....							
1884.....							
1885.....							
1886.....							
1887.....							
1888.....							
1889.....							
Total..							

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 763

## Statement of assets December 31, 1889.

[Inquiries numbered 54 to 76, inclusive, under the heading of "Assets," on Life Insurance—Schedule A, are common to this schedule and are not here reproduced.]

114. Total assets, as per books of the company.

### ITEMS NOT ADMITTED.

115. Loans on company's own stock, company's own stock, furniture, fixtures, etc., commuted commissions, agents' balances, loans on personal security, and all other items not admitted under state law.

Total assets (less items not admitted).

## Statement of liabilities December 31, 1889.

[Inquiries numbered 79 to 100, inclusive, under the heading of "Liabilities," on Life Insurance—Schedule A, are common to this schedule and are not here reproduced.]

Number of policies and amount and kind of insurance written during the ten years 1880 to 1889, inclusive.

Year.	Insurance written other than industrial.					
	Whole life policies. 1		Endowment policies. 2		All other policies (except industrial). 3	
	Number. 138	Amount. 139	Number. 140	Amount. 141	Number. 142	Amount. 143
1880.....						
1881.....						
1882.....						
1883.....						
1884.....						
1885.....						
1886.....						
1887.....						
1888.....						
1889.....						
Total..						

Year.	Industrial policies written.		Amount of old policies revived and increased.	Amount of reversionary additions.	Total insurance written or increased.	
	Number. 144	Amount. 145			Number of policies. 148	Amount. 149
1880.....						
1881.....						
1882.....						
1883.....						
1884.....						
1885.....						
1886.....						
1887.....						
1888.....						
1889.....						
Total..						

*Number of policies and amount of insurance terminated, and mode of termination, during the ten years 1880 to 1889, inclusive.*

*Number and amount of policies written, premiums received, and losses paid during the ten years 1880 to 1889, inclusive.*

[illegible]

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 765

*Number and kind of policies in force, with additions, in the United States and in foreign countries on the 1st day of January, 1880.*

Class of business.	United States.		Foreign countries.		Total.	
	Number. 182	Amount. 183	Number. 184	Amount. 185	Number. 186	Amount. 187
Whole life policies.....						
Endowment policies.....						
All other policies (except industrial).....						
Industrial policies.....						
Total.....						

*Number and kind of policies in force, with additions, in the United States and in foreign countries on the 31st day of December, 1889.*

Class of business.	United States.		Foreign countries.		Total.	
	Number. 188	Amount. 189	Number. 190	Amount. 191	Number. 192	Amount. 193
Whole life policies.....						
Endowment policies.....						
All other policies (except industrial).....						
Industrial policies.....						
Total.....						

REPORT of the ..... of ....., State of ....., showing the business done in each State and Territory from 1880 to 1889, inclusive.

STATEMENT OF BUSINESS TRANSACTED IN THE STATE OF ALABAMA (a) DURING THE YEARS 1880 TO 1889, INCLUSIVE.

Years.	Received for annual dues, assessments, and all other sums from members (cash or notes).	Payments to members (cash or notes).				Exhibit of certificates.			
		For death losses.	For endowments.	For sick benefits and all other payments to members.	Total payments to members.	Number in force Jan. 1, 1880, ..... Amount in force Jan. 1, 1880, \$.....		In force Dec. 31.	
						Issued during the year.		Num-ber.	Amount.
						Num-ber.	Amount.		
1880.....									
1881.....									
1882.....									
1883.....									
1884.....									
1885.....									
1886.....									
1887.....									
1888.....									
1889.....									
Total.									

a The printed schedule contains a similar form for each state and territory, arranged alphabetically.

REPORT of the ..... of ....., State of ....., showing the business done in 1889, and from 1880 to 1889, inclusive.

1. Does the following report cover the whole business of the association or a branch of it?
2. If a branch, give the full name of the association and the location of the principal office.

*Organization.*

3. Date of organization.
4. Character of organization, joint stock or mutual.
5. Date of charter or incorporation.

6. Is the charter perpetual or limited?
7. If limited, state number of years.
8. By whom chartered.
9. Is the company transacting business under any special act?
10. If yes, give date of act.
11. Date when organization began business.

*Officers and employees.*

12. President; vice-president.
13. Secretary; treasurer.
14. Are the officers or directors elected by the holders of certificates?
15. If no, how are they elected?
16. How often do elections of officers take place?
17. Number of officers, bookkeepers, clerks, and other employees employed in the general administration of the company's business.
18. Number employed as agents or otherwise in procuring business.
19. Territory covered by the company in transacting business.

*Membership.*

20. Between what ages are members admitted?
21. Are females admitted to membership?
22. Are colored persons admitted to membership?
23. Is the membership limited in number? If yes, state number.
24. Is the membership for life? If no, state number of years.
25. Is the membership restricted as to occupations?
26. Is the membership restricted to certain sections of the country?
27. If yes, give sections.
28. Is a medical examination required?
29. Are the applicants required to be members of any special organization or society?

*Kinds of business.*

30. Is the business confined to insuring lives?
31. Is the business exclusively for the payment of death benefits?
32. Does it provide for the payment of sick benefits?
33. Does it provide for the burial of the dead?
34. Does it do an accident business?
35. State any other objects it may have?

*Methods of business.*

36. Has the company or association an emergency or reserve fund? If yes:
37. For what purpose was it created?
38. How was it created?
39. What is the amount of such fund?
40. What are the provisions for meeting expenses?
41. How are death benefits collected?
- Fees and assessments, viz:
42. Are initiation or membership fees required?
43. Are they the same for all ages, or are they graded?
44. If graded, how are they graded?
45. Are assessments the same for all ages, or are they graded?
46. If graded, how are they graded?
47. Do assessments increase with the years of the members?
48. Are assessments made for death, losses, or benefits?
49. If yes, are they made in advance or postponed until death occurs?
50. Are assessments made for expenses?
51. Are members required to pay annual dues?
- Endowments, viz:
52. Has the company or association any endowment features?
53. If yes, describe them.
54. What provision has been made for meeting the payment of such endowments?

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 767

*Condition and financial affairs from organization to December 31, 1889.*

[Number of years: .....]

## MEMBERSHIP.

55. Whole number of members admitted since organization.
56. Number of members discontinued since organization, viz:
  56. From death.
  57. From other causes.
  58. Total discontinued.
59. Total membership December 31, 1889.

## RECEIPTS IN CASH FROM ORGANIZATION TO DECEMBER 31, 1889.

- Received from members, viz:
  60. Amount received for entrance fees and annual dues.
  61. Amount received from assessments.
  62. Total received from members.
  63. Received from all other sources.
  64. Total cash received.

## EXPENDITURES IN CASH FROM ORGANIZATION TO DECEMBER 31, 1889.

- Paid to members, viz:
  65. Amount paid for death losses or benefits.
  66. Amount paid for sick benefits.
  - All other payments to members, viz:
    67. For .....
    68. For .....
    69. For .....
  70. Total paid to members.
- Paid for expenses, viz:
  71. For officers' salaries.
  72. For salaries of employees.
  73. All other expenses.
  74. Total paid for expenses.
  75. All other payments in cash.
  76. Total cash expenditures.

*Statement of the financial condition December 31, 1889, and the business transacted during the year 1889.*

## I.—CAPITAL.

77. Amount of capital authorized.
78. Amount paid up in cash.
79. Amount paid up in notes.

## II.—BALANCE SHEET.

80. Amount of net or invested assets December 31 of previous year [1888].

## III.—CASH INCOME DURING THE YEAR 1889.

- Gross amount paid by members to the association or its agents, without deductions for commissions or other expenses, viz:
  81. Gross amount of membership fees required or represented by applications, without deductions.
  82. Annual dues as per contract, without any deductions whatever.
    - Assessments:
      83. Mortuary.
      84. Reserve or emergency fund.
      85. Expenses.
    86. Medical examiners' fees paid by applicant.
    87. Total paid by members.
  88. Amount received for interest.
  89. Amount received for rents.
  90. Advances to agents repaid.
  - Cash received from other sources, viz:
    91. ....
    92. ....
    93. Total income.
    94. Total net resources.
  95. [Assessments paid in advance, included in numbers, .....]
  96. Amount carried forward.

## 768 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### IV.—DISBURSEMENTS DURING THE YEAR 1889.

- Paid to members, viz:
- 97. For losses and claims.
- 98. For advance payments returned to rejected applicants.
- 99. Total paid to members.
- Paid on account of expense, viz:
- 100. Commissions and fees retained by or paid or allowed to agents on account of fees and dues.
- 101. Commissions paid or allowed for collecting assessments.
- Salaries paid, viz:
- 102. To managers and agents not paid by commission.
- 103. To officers.
- 104. Other compensation to officers.
- 105. To office employees.
- 106. Other compensation to employees.
- 107. Total paid salaries.
- 108. Medical examiners' fees, whether paid direct by members or otherwise.
- 109. Amount paid for rent.
- 110. Amount paid for taxes.
- 111. Advertising and printing.
- 112. Advanced to officers and agents, to be repaid out of future salaries or commissions.
- 113. All other items of expenditure on account of expense.
- 114. Total paid on account of expense.
- 115. All other payments not specified above.
- 116. Total disbursements in cash.
- 117. Balance (invested as per following section).
- 118. [Advance assessments applied, included above, \$.....]

### V.—NET OR INVESTED ASSETS.

(Where held as emergency or reserve fund, state the fact specifically.)

- 119. Cost value of real estate less all incumbrances.
- 120. Loans on mortgages (first liens) on real estate.
- 121. Loans secured by pledge of bonds, stocks, or other marketable collateral.
- 122. Cost value of bonds and stocks owned absolutely.
- 123. Agents' ledger balances.
- 124. Cash in office.
- 125. Cash deposits in bank on emergency or reserve fund account.
- 126. All other deposits in banks.
- 127. Total net or invested assets as per balance of previous section.
- 128. Deduct depreciation of assets, to bring same to market value, and agents' balances unsecured.
- 129. Total net assets (less depreciation).

### VI.—NONINVESTED ASSETS.

- 130. Interest due and accrued.
- 131. Rent due and accrued.
- 132. Market value of real estate over cost and incumbrances.
- 133. Market value of bonds and stock over cost.
- 134. Total noninvested assets.
- 135. Gross assets.

### ITEMS NOT ADMITTED.

- 136. Furniture, fixtures, and safes.
- 137. Supplies, printed matter, stationery.
- 138. Judgments.
- 139. Bills receivable.
- 140. Cash advanced to or in the hands of officers and agents.
- 141. Agents' balances.
- 142. Loans on personal security.
- 143. Total items not admitted.
- 144. Gross assets (less items not admitted)
- 145. Amount carried forward.

## VII.—LIABILITIES.

- 146. Losses adjusted, due, and unpaid.
- 147. Taxes due and accrued.
- 148. Salaries, rents, and office expenses due and accrued.
- 149. Borrowed money.
- 150. Interest accrued on same.
- 151. Advance assessments.
- 152. Bonus or dividend obligations.
- All other liabilities (not including contingent mortuary), viz:
- 153. -----
- 154. -----
- 155.       Total actual liabilities.
- 156.       Balance net assets.

## CONTINGENT MORTUARY ASSETS (OR RESOURCES).

- 157. Mortuary assessments called and not yet due
- 158. Mortuary assessments due and unpaid.
- Mortuary assessments not yet called, viz:
- 159.     For losses unadjusted.
- 160.     For losses resisted.
- 161.     For losses reported.
- 162.     Total due from members.
- 163. Deduct estimated cost of collection.
- 164.     Net amount due from members.
- Total of net and contingent assets.

## CONTINGENT MORTUARY LIABILITIES.

- 165. Losses adjusted, not yet due (number of claims .....).
- 166. Losses in process of adjustment (number of claims .....).
- 167. Losses reported (number of claims .....).
- 168. Losses resisted (number of claims .....).
- 169. All other contingent liabilities.
- 170.     Total contingent mortuary liabilities.
- Surplus beyond all liabilities.

## RECORD OF BUSINESS FOR THE TEN YEARS 1880 TO 1889, INCLUSIVE.

*Assets and liabilities January 1, 1880.*

## ASSETS.

- 171. Gross assets (less contingent assets).
- 172. Contingent mortuary assets (or reserve).
- 173.     Total assets January 1, 1880.

## LIABILITIES.

- 174. Total liabilities (less contingent liabilities).
- 175. Contingent mortuary liabilities.
- 176.     Total liabilities January 1, 1880.
- 177.     Surplus.

*Assets and liabilities December 31, 1889.*

## ASSETS.

- 178. Gross assets (less contingent assets).
- 179. Contingent mortuary assets.
- 180.     Total assets December 31, 1889.

## LIABILITIES.

- 181. Total liabilities (less contingent liabilities).
- 182. Contingent mortuary liabilities.
- 183.     Total liabilities December 31, 1889.
- 184.     Surplus.

# 770 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## Cash income and expenditures.

CASH RECEIVED FROM JANUARY 1, 1880, TO DECEMBER 31, 1889.

Year.	Received from members.				Interest and rents.	Received from all other sources.	Total amount received in cash.
	Fees and annual dues.	Assessments.	All other sums, including medical examiners' fees.	Total received from members.			
	185	186	187	188	189	190	191
1880.....							
1881.....							
1882.....							
1883.....							
1884.....							
1885.....							
1886.....							
1887.....							
1888.....							
1889.....							
Total...							

EXPENDITURES IN CASH FROM JANUARY 1, 1880, TO DECEMBER 31, 1889.

Year.	Paid to members.		Paid on account of expense.				Total cash expenditures
	Losses and claims.	All other payments to members.	Officers and employees.		Commissions to agents.	All other sums paid for expenses.	
			Salaries, fees, and compensation to officers.	Salaries, fees, and compensation to employees.			
			194	195			
1880.....							
1881.....							
1882.....							
1883.....							
1884.....							
1885.....							
1886.....							
1887.....							
1888.....							
1889.....							
Total...							

Statement of number, amount, and kind of certificates issued and terminated during the ten years 1880 to 1889, inclusive.

## CERTIFICATES ISSUED.

Year.	Death benefits.		Endowments.		Sick benefits.		All other certificates issued.	
	Number. 199	Amount. 200	Number. 201	Amount. 202	Number. 203	Amount. 204	Number. 205	Amount. 206
1880.....								
1881.....								
1882.....								
1883.....								
1884.....								
1885.....								
1886.....								
1887.....								
1888.....								
1889.....								
Total..								

*Statement of number, amount, and kind of certificates issued, etc.—Continued.*

## CERTIFICATES ISSUED—Continued.

Year.	Certificates issued—Continued.		Certificates terminated.					
	Total certificates issued.		By death.		By lapse and surrender.		Total certificates terminated.	
	Number. 207	Amount. 208	Number. 209	Amount. 210	Number. 211	Amount. 212	Number. 213	Amount. 214
1880.....								
1881.....								
1882.....								
1883.....								
1884.....								
1885.....								
1886.....								
1887.....								
1888.....								
1889.....								
Total..								

*Number and amount of certificates issued, premium fees due, and assessments received, losses and benefits paid, during the ten years 1880 to 1889, inclusive.*

Year.	United States business.				Business in foreign countries.				Total business transacted.			
	Number of certificates issued.	Amt. of certificates issued.	Received from members.	Paid to members.	Number of certificates issued.	Amt. of certificates issued.	Received from members.	Paid to members.	Number of certificates issued.	Amt. of certificates issued.	Received from members.	Paid to members.
	215	216	217	218	219	220	221	222	223	224	225	226
1880.....												
1881.....												
1882.....												
1883.....												
1884.....												
1885.....												
1886.....												
1887.....												
1888.....												
1889.....												
Total..												

*Number and kind of certificates in force in the United States and in foreign countries on the 1st day of January, 1880.*

Kind of certificates.	United States.		Foreign countries.		Total.	
	Number. 227	Amount. 228	Number. 229	Amount. 230	Number. 231	Amount. 232
Death benefit.....						
Endowment.....						
Sick benefit.....						
All other kinds.....						
Total.....						



## BENEFICIARY ASSOCIATIONS.

STATEMENT of the ....., of ....., State of ....., during the year 1839 (or its last fiscal year).

Location of lodge or association:

State.

County.

City or town.

Number of lodge or association.

Name of lodge or association.

Name and official title of principal officers:

Name; official title.

Name; official title.

Name; official title.

Date of organization.

Date of incorporation.

Date began business.

Date of the beginning of the fiscal year.

## MEMBERSHIP.

Number at the beginning of the last fiscal year.

Number added during the last fiscal year.

Total.

Number died during the last fiscal year.

Number dropped for all other causes.

Total.

Number at the end of the last fiscal year.

*Financial condition at the beginning of the last fiscal year.*

1. Amount of assets on hand and invested.
2. Amount of all indebtedness.
3. Net assets at the beginning of the year.

*Income during the last fiscal year.*

4. Amount received from members for dues and assessments.
5. Amount received from all other sources.
6. Total amount received during the year.

*Expenditures during the last fiscal year.*

	Number.	Amount.
7. For death of members .....		
8. For funeral relief to beneficiaries on death of members .....		
9. For funeral relief to members on death of dependents or members of family .....		
10. For relief on account of sickness or disability .....		
11. For other relief of members (a) .....		

a State here the purpose for which the relief was given.

12. Total relief paid during the year.
13. For expense of management.
14. For expenditures for other purposes.
15. Total expenditures during the year.

*Financial condition at the ending of the last fiscal year.*

16. Amount of assets on hand and invested.
17. Amount of all indebtedness.
18. Net assets at the end of the year.

## LIBRARIES.

[The inquiries relating to "Libraries" at the censuses of 1850, 1860, and 1870 are contained in the schedule for "Social Statistics."

The special schedule used at the census of 1880 called for a separate return for each library to which sent, and where the inquiries are tabular in form they have been so reproduced. The supplemental inquiry, in the form of a postal card, at the same census, also called for a separate return for each library to which sent, and the inquiries, with the exception of certain of those relating to the year 1870, are, in the main, the same as called for by the special schedule.]

## CENSUS OF 1880.

## SPECIAL SCHEDULE I.—LIBRARIES.

Statistics of libraries other than private, including city, town, village, district, university, college, school, club, society, professional, circulating, and all other libraries accessible to the public.

## General inquiries:

Name of place.

County; state.

Population.

Full name of library.

When established?

How or by whom established?

In whom is its ownership vested?

If connected with a college, school, society, or other institution, give the name, character of the connection, and date when it began.

Is it a public library in the sense that all who choose may avail themselves of its benefits on certain conditions, or is it chiefly or wholly for the benefit of a particular class?

Is it a university, college, high school, common school, society, law, theological, medical, church, Sunday school, or special library? State which.

Has the library any deliveries, agencies, or branches outside the main library room? If so, how many? What number of volumes was in each of the above in 1880? What was the total circulation through each of the above in 1880?

## Officers and management:

In what way is the management of this library provided for?

If it has a board of managers, what are its title and duties, and how and when is it chosen?

To what extent is the library under public supervision?

Name and address of librarian.

Salary paid per year.

Has he other duties, or is his whole time given to the library?

Number of assistants: Male; female.

Are reports made periodically?

To whom?

Date of last one made.

Was it written or printed?

## Property, endowments, and gifts:

Is the library endowed? If so, state source, amount, and annual income.

If not endowed, from what sources are its revenues derived?

How many buildings does it own? Uses of same.

Value of endowments.

Value of buildings and grounds.

Value of books and other contents of library.

Cash funds, and property other than above.

Total value of property.

Mortgages on same.

Other incumbrances.

Total of mortgages, debts, and other incumbrances.

Gifts from public and private sources since 1870:

From public sources:

Endowments.

Other gifts.

Total.

Property, endowments, and gifts—Continued.

Gifts from public and private sources since 1870—Continued.

From private sources:

Endowments.

Other gifts.

Total.

Grand total of value of gifts since 1870.

Increase in value of property by means other than above since 1870.

Grand total of increase in value of library property since 1870.

Receipts and expenditures:

Receipts, 1880:

Municipal appropriation (including dog taxes, or other income allowed the library by law).

From income of invested funds.

Gifts.

Fines.

Payments for losses of or injuries to books.

Sale of books (condemned or duplicates).

Sale of catalogues.

Membership fees.

Miscellaneous receipts (specify any large items not included in above table, and include under this head only small items of sundries).

Total receipts.

Expenditures, 1880:

Books.

Pamphlets.

Periodicals.

Binding (and book repairs).

Insurance (on books).

Total of book account.

Repairs and additions to buildings.

Furniture and fixtures.

Insurance (on building).

Rent.

Fuel, lights, and water tax.

Total of building account.

Administration.

Cataloguing.

Extra service.

Total of salary account.

Printing catalogues.

Blanks and stationery.

Postage.

Paper covers.

Pamphlet cases and binders.

Sundries (specify any large items).

Total of supply account.

Total expenditures.

# 776 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Classification or analysis of growth, size, and use for 1880:

	Volumes added during year.	Total number of volumes in library.	Volumes issued during year.	
			Delivered for library use.	Delivered for home use.
<b>Literature:</b>				
Poetry and drama .....				
Prose—fiction .....				
Essays, oratory, letters, satire, humor, and miscellaneous .....				
Literary periodicals .....				
Foreign light literature .....				
Juveniles .....				
<b>History:</b>				
Geography, description, and travels .....				
Biography .....				
History (political) .....				
<b>Arts and sciences:</b>				
Fine arts, amusements, architecture, drawing and design, engraving, landscape gardening, music, painting, photography, and sculpture...				
Industrial arts, agriculture, commerce, communication and transportation, chemical technology, domestic economy, engineering, manufactures, medicine, mechanic trades (building, etc.) .....				
Natural sciences (astronomy, botany, biology, chemistry, geology, mathematics, paleontology, zoology, etc.) .....				
Philology .....				
Philosophy, ethics, theology, and religion .....				
Sociology (politics, law, and education) .....				

Has this library a special department devoted to periodical literature?

Is there a reading room in this department?

Are periodicals loaned before being bound?

Periodicals taken:

	General and miscellaneous.	Philosophy, ethics, theology, and religion.	Sociology (politics, law, and education).	Philology and natural sciences.	Useful arts (medicine, engineering, agriculture, commerce, manufactures, trades, building, and technology).	Fine arts, music, and amusements.	Literature.	Geography, travels, biography, history.	Total.
Quarterlies .....									
Bimonthlies .....									
Monthlies .....									
Weeklies .....									
Semiweeklies .....									
Dailies .....									
Total .....									

Summary of growth in 1880 and present condition:

Books:

Increase by purchase (in volumes).

Increase by gifts (in volumes).

Increase by binding pamphlets (in volumes).

Increase by binding periodicals (in volumes).

Number of missing volumes restored since last report.

Total of volumes added during year 1880.

Number of volumes in the library, as per report of 1879, counting pamphlets only when in binders, cases, or bound, and counting books as volumes only when separately bound.

Whole number of volumes, as per report of 1879, including subsequent additions.

Deduct number of volumes missing or withdrawn since last report.

Total number of volumes now in the library.

## Summary of growth in 1880 and present condition—Continued.

## Unbound pamphlets:

Increase by purchase in 1880.

Increase by gift in 1880.

Number as per report of 1879.

Total number in the library.

## Periodicals:

Number of newspapers subscribed for in 1880.

Number of newspapers given in 1880.

Number of magazines subscribed for in 1880.

Number of magazines given in 1880.

Number of periodicals, as per report of 1879.

Total number of volumes of periodicals now in the library.

Grand total of books, pamphlets, and periodicals.

## Catalogues and arrangement:

Date of last printed catalogue.

Number printed.

Provisions as to distribution and price.

Is there a card catalogue of authors? of subjects?

What are the special features of the catalogue, or method of indexing?

Is there a catalogue of books added since the publication of the regular catalogue?

Are the books classed on the shelves by subjects?

What scheme is used for this classification?

Is the location of books movable or fixed?

Are the various sizes kept distinct on the shelves, or are all books put in regular order regardless of size?

## Access and use:

On what terms are its benefits extended? If without charge—

To men.

To women.

To minors.

If upon payment of fees—

Amount of life membership fee.

Amount of annual membership fee.

Amount of quarterly membership fee.

Amount of monthly membership fee.

Amount of weekly membership fee.

Amount of fee for single books drawn; and conditions.

Amount of fee for special privileges; and conditions.

Note any special conditions regulating any of these privileges.

Particulars as to fines:

Amount per day.

Total annual receipts from same.

Are they rigorously collected?

Are notices or messengers sent to delinquents?

## Circulation in 1880:

Number of volumes delivered for home use.

Number of volumes delivered for reference use.

Average number of volumes delivered for daily use, at home; for reference.

Largest number of volumes delivered for daily use (with date).

Smallest number of volumes delivered for daily use (with date).

Number of books lost and not paid for.

Number of books worn out and withdrawn.

Number of notices to delinquents.

Number of volumes covered.

Number of volumes bound.

Number of names of patrons registered during the year.

Total number of names of patrons registered to date.

## Consultation:

Are there desks for private use?

Are there reading rooms?

Are there helps and hints (other than catalogue and indexes reported above) for use of readers?

Library hours: Morning; afternoon; evening.

Is the library open on Sunday?

If so, what hours, and on what conditions?

Is it closed on any other days?

How many days was it open to the public in 1880?

## 778 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Character of books most in demand, and classes by whom drawn:

(NOTE.—See table on page 776 for books classified under the following heads:)	Whole number of books of this class in the library.	Percentage of books in this class in the library.	By what classes chiefly drawn—men, women, or minors.
Literature .....			
History .....			
Arts and sciences .....			

Names of authors and works in greatest demand.

Number and occupation of those who make use of this library:

	Male.	Female.	Total.
Clergymen .....			
Lawyers .....			
Physicians .....			
Teachers .....			
Students .....			
Mechanics .....			
Farmers .....			
Merchants and clerks .....			
Laborers and servants .....			
Under 15 years of age .....			
Under 21 years of age .....			
Unclassified .....			

Number of stock or shareholders, if a society or corporation.

Number of life members, if an association.

Number of annual subscribers in 1880.

Number of different weekly or monthly subscribers in 1880.

Number of different persons other than above using the library in 1880.

Whole number of persons who have made use of this library in 1880.

Please send a copy of catalogue and report last published in franked envelope inclosed.

N. B.—In order to insure reports from libraries which might otherwise be omitted, the librarian making the above report will confer a favor by furnishing, below, the names of public libraries and librarians in his immediate vicinity.

Library.	Name and address of librarian.
(a)	(a)

a Several blank lines are printed in schedule.

[Supplemental card inquiry.]

Name of library.

To which of the following classes does it belong? Professional school; college; public school; private school; Sunday school; town; city; other than classes named.

In what year was it founded?

Number bound volumes in 1880; 1870.

Number unbound volumes in 1880; 1870.

Total number volumes in 1880; 1870.

Total value of books in 1880; 1870.

Total value of real estate in 1880; 1870.

Total value of all property in 1880; 1870.

Is use free or upon payment of fees?

Number books circulated in 1880.

Class of books most in demand.

Proportion of books in library as follows:

Literature, number of volumes.

History, number of volumes.

Arts and sciences, number of volumes.

Periodicals, total number taken.

Value of endowments in 1880; 1870.

Gifts since 1870.  
Total receipts 1880.  
Total expenditures 1880.  
Remarks.  
Report made by .....  
P. O. address.

### REAL ESTATE MORTGAGES.

[Slips used by abstracters in the offices of recorders, for recording mortgages made for the ten years 1880 to 1889, including all instruments having the real if not the legal nature of mortgages.]

#### CENSUS OF 1890.

##### RECORDED INDEBTEDNESS—SERIES 1.

1. Year—188 .
  2. County (or city) of .....
  3. State of .....
  4. Private corporation—mortgagor.
  5. Private corporation—mortgagee.
  6. Acres.
  7. Lots.
  8. Amount.
  9. Rate—per cent.
  10. Date of satisfaction—year; number of month; day.
  11. Date of mortgage—year; number of month; day.
  12. Life of mortgage.
  13. Product of life and amount.
- Remarks.

##### RECORDED INDEBTEDNESS—SERIES 2.

1. Year—18 .
  2. County of .....
  3. State of .....
  4. Private corporation—mortgagor.
  5. Private corporation—mortgagee.
  6. Acres.
  7. Lots.
  8. Amount.
  9. Rate—per cent.
- Mortgagor—name; address.  
Mortgagee—name; address.  
Remarks.

*To the person to whom the envelope containing this slip is addressed:*

Under the act of Congress of March 1, 1889, commanding the collection of statistics of the recorded indebtedness of private corporations and individuals, it has been ascertained from the records that the mortgage described on the other side of this slip has been made and is uncanceled of record. You are earnestly requested to write replies after the questions printed below and to mail this slip in the inclosed envelope, which requires no postage. The information will be kept secret, as the law directs.

Was this mortgage fully paid January 1, 1890?

If not fully paid, how much was due upon the principal January 1, 1890?

Was this mortgage made to secure part of purchase money, to make improvements, or for what other purpose; or, if made to renew a previous mortgage, what was the debt originally created for?

##### RECORDED INDEBTEDNESS—PARTIAL PAYMENT SLIP.

Loan made upon real estate situated in—

1. County.
2. State.
3. Year in which the loan was made, 188 .
4. Amount of original loan.

780 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

5. Amount due upon the principal January 1, 1890.
6. Amount of the partial payment.

Remarks.

INSTRUCTIONS.

Include only the mortgages dated within the six years ending with December 31, 1889, covering all mortgages upon which no partial payments have been made.

Do not include mortgages that have been paid in full.

The year when each mortgage was made, and not the month and day, is to be written down.

Write the ordinary abbreviations of the states.

Enter only one mortgage on a slip, and write with a lead pencil.

Make no entry on line of "Amount of partial payment."

RECORDED INDEBTEDNESS—RELEASE SCHEDULE.

NOTE.—To be used for memorandum of releases in counties where such memorandum is required by special instructions, and in other counties where the life of mortgages may be easily taken by making a few memorandums.

Released mortgages—book; page.

Remarks.

Releases—book; page; year; number of month; day.

What part of the mortgage estate is released.

INSTRUCTIONS CONCERNING THE SLIPS AND THE WORK IN THE OFFICES OF RECORDERS.

[Extract from circular relating to duties and responsibilities of abstracters, and instructions to be observed in their work.]

When beginning work in a recorder's office, one of the first things to be learned is to what extent mortgages were recorded in books by themselves and were arranged in the books in the consecutive order of reception for the ten years, 1880-1889, and for such further length of time as the work calls for in inquiry counties. In the case of confused records, it may be desirable to begin with the last books containing mortgage records, and, proceeding backward in time in the reverse order of the numbering of the books, to make memorandum of every book containing mortgage records for the period to be covered by the work; said memorandum to show the number of the book, the date of the mortgage first recorded in it, and the date of the mortgage last recorded.

Look out for mortgage records mixed in with records of deeds and of miscellaneous instruments.

Do not fail to take account of mortgages passing under the names of trust deeds (as in Virginia, West Virginia, Pennsylvania, Missouri, and Indiana); of leasehold mortgages (as in the oil regions of New York and Pennsylvania); of deeds containing a vendor's lien clause to secure a portion of the purchase money (as in Alabama and Indiana); of the instrument known as a bond for a deed, where the custom prevails of securing payments of purchase money in that way; of so-called agreements (as in California), and of all other instruments having the real if not the legal nature of mortgages.

In the counties that are not equated life or inquiry counties (see paragraph 12 of the "Instructions to Assistant Special Agents" <sup>(a)</sup>) use the slips of series 1 for all mortgages dated in 1880-1889, whether canceled or not. For these counties do not enter date of satisfaction and date of mortgage.

In equated life counties that are not inquiry counties, use the slips of series 1, omitting to enter date of satisfaction and date of mortgage for all except the canceled mortgages of 1880-1883.

---

<sup>a</sup> Instructions to Assistant Special Agents, paragraph 12. Certain counties will be selected in each state for the purpose of making special inquiries in them: (1) As to the amounts remaining unpaid on mortgages still in force, and (2) as to the motives or purposes for which the mortgages were made. These are designated "inquiry" counties, and in them the names of all mortgagors and mortgagees of mortgages in force will be taken on the slips of series 2, with a view to addressing the proposed inquiries to the parties themselves. In all counties in which the character of the records permits, the date of cancellation will be taken of all mortgages canceled during the four years 1880-1883, as provided for on slips of series 1, for the purpose of determining the actual life of mortgages; and such counties are designated "equated life" counties.

In inquiry counties, which will probably also be equated life counties, use the slips of series 1 for all canceled mortgages, but enter dates of satisfaction and mortgage only for the canceled mortgages of 1880-1883 if a county is named for equated life. Use the slips of series 2 for all uncanceled mortgages of 1880-1889, and for as many years previous to 1880 as shall be determined upon by the Superintendent of Census.

In beginning the work of abstracting, start with the last recorded mortgages of 1889 and proceed backward to the beginning of the period covered by the work.

Look out for mortgages dated within ten years previous to January 1, 1890, but received on or after that day, and make abstracts for all such mortgages.

In abstracting, the following rules should be observed:

In the New England counties where there is no town registration, but where there are more than one registry of deeds, as in Essex County, Massachusetts, registries must be designated upon the slips in each county as directed by the Superintendent of Census before the work in them begins. In Connecticut, Rhode Island, and Vermont the names of towns should be written in the space where the name of a county is, but, if possible, not so as to cover the county name. If an abstractor needs more slips than have been sent to him for any county, he is to use slips upon which the county name has not been printed, and is to write the name in the place provided for it.

The last figure of the year should be written on slips of series 1, and the last two figures on the slips of series 2.

In the matter of dates be governed by the date of acknowledgment, and not by the date of filing for record.

Use the following classification of private corporations: Savings banks, to be indicated by "S B;" insurance companies, to be indicated by "Ins;" co-operative banks and building and loan associations, to be indicated by "B L A;" national banks, state banks (not savings banks nor other banks included in other classifications), and loan and trust companies, to be indicated by "Bk;" mortgage guaranty and loan companies, to be indicated by "M C;" all other private corporations, including trading and manufacturing corporations, to be indicated by "O." Do not write down the names of corporations, but write down the class designation as indicated in this paragraph. (See paragraphs 27 and 28.)

The term "private corporations," as used in the census act, does not include corporations having distinctively public functions, such as railroad, express, telegraph, telephone, street railroad, gas, water, and electric-light companies, cemetery and county fair associations, church corporations, etc. Mortgages of private corporations, that is, of banks, building associations, insurance or loan companies, or of manufacturing, mining, or business corporations of every kind, etc., are to be listed; mortgages of public corporations are not to be listed.

The abstractor should determine, by inquiring of the recorder or someone in his office, or by probability, whether in doubtful cases a mortgagor or mortgagee is a corporation or a partnership. In judging of probability, the kind of business done by the mortgagor or mortgagee may give a clew; if the business is large and employs a large capital, it is probably managed by a corporation, and vice versa.

Under "Priv. Corp.—Mortgagor," on the slip, write the designations of classification when a private corporation is the mortgagor. When the mortgagor is not a private corporation, put down a dash, thus —.

Under "Priv. Corp.—Mortgagee" make entries in accordance with the rules that apply to "Priv. Corp.—Mortgagor."

In the place for acres write down the number of acres, if it may be readily found, and make no entry in the place for lots.

If the number of acres can not be readily found, but it is reasonably certain that acres are mortgaged, write "Yes," and make no entry in the place for lots.

If the mortgage is second or subsequent mortgage upon acres, put down parallels, thus (=), and make no entry in the place for lots.

If it is not determined whether the mortgage covers acres or lots, put down a cross in the place for acres and another cross in the place for lots, thus (X).

If the mortgage covers both acres and lots, treat it as an incumbrance upon the acres, if it is probable that the acres are more valuable than the lots, and vice versa; a decision must be made one way or the other.

In the place for lots write down the number of lots, if it may be readily found, and make no entry in the place for acres.

If the number of lots can not be readily found, but it is reasonably certain that lots are mortgaged, write down the figure "1" and make no entry in the place for acres.

If the mortgage is second or subsequent mortgage on lots, put down parallels and make no entry in the place for acres.

Whether a mortgage covers acres or lots will often be a matter only of probability, and the abstractor will need to exercise a liberal but trained judgment in deciding. He should rarely find it necessary to make an entry of the cross (X) upon the slip under acres and lots if there is any description of the real estate, or if the description is such, as under the government survey, that the number of acres is apparent; but if the description is obscure, state in "Remarks" any reference that may be reached as to the probable extent of the tract.

If the amount secured by the mortgage is not mentioned, put down a cross (X) in the place for amount.

In looking for the amount of debt secured by a mortgage the abstractor should be careful not to accept the statement of consideration in the beginning of the instrument, but he should obtain the fact from the part of the mortgage stating the condition.

In taking the amount for which the mortgage is given use even dollars only. If the cents in any case are less than fifty, drop them; if fifty or more, add one to the number of dollars.

If the rate of interest is not mentioned, put down a cross (X) in the place for rate.

Give the rate of interest which the loan bears before maturity, if that is made to appear, and avoid taking the rate which the note is to bear after due.

The place for remarks on the slips is not intended for frequent use. Facts that qualify or add to the entries upon the remainder of the slip should be noted, and generally no other facts, unless they add important information.

On the slips of series 1 enter the date of satisfaction and the date of the mortgage on the lines where indicated when called for by paragraphs 17, 18, and 19. The entry of "1882, 7, 21," in the spaces of the line of date of mortgage, would mean that the mortgage was made July 21, 1882. No entries should be made on the line of "Life of mortgage" nor on the line of "Product of life and amount."

On the slips of series 2 enter the names and addresses of mortgagor and mortgagee, where indicated.

A mortgage debt that covers real estate, situated outside as well as inside of the district in which it is recorded, and the number of acres or lots in such case, should be apportioned by the abstractor as best he may between the registry districts, and he should make abstracts only for the portion that he regards as belonging to his district.

Abstractors should find out before doing any abstracting in any county whether it was organized within the ten-year period of 1880-1889; if so, the abstractor working in the county having the records of mortgages made upon land in the new county before the division should give those mortgages to the new county upon the slips, and to this end he should make a list of the towns which before the division were in the area now constituting the new county.

Mortgages that do not represent debt should be omitted from the abstracts. Such mortgages are those made to secure sureties on a bail bond or on an executor's bond or on an officer's bond; but mortgages made to secure future debts are wanted, also mortgages given by the maker of a promissory note to his surety and mortgages made to secure the life support or annuity of a mortgagee.

When it is found that mortgages are recorded in the same volume with other instruments, reference may be made to the index volumes for book and page of mortgage entry if it is found to expedite the work.

In states where a mortgage is given to secure interest money at the same time that the mortgage to secure the principal is made, as in Missouri, Kansas, Nebraska, and some other states, the interest mortgage should be omitted from the abstracts when it plainly appears to be such a mortgage. The mortgage to secure the loan in this case bears a lower rate of interest than the borrower is really paying, and the abstractor who works in counties where this custom prevails must enter upon his slips of abstracts the market rates of interest in those counties for the years taken, and should not accept the rates mentioned in mortgages when it is evident that the borrowers were in reality paying higher rates.

As far as possible equated life counties will be decided upon provisionally before the work in them begins.

Early in the work in every county it must be ascertained for the years 1880-1883 whether the records of all instruments of cancellation were made in the recorder's office, whether entries of discharge were made upon the margin of the record, and whether the recorder was in the habit of noting upon the margin of the record of canceled mortgages a reference to the book and page where such instruments of cancellation are recorded. Whatever the practice was, immediate notice of the fact must be given to the Superintendent of Census and to the assistant special agent in charge when it is found out. The object is to take the life of mortgages in those counties

where the dates of cancellation may be got without having recourse to the index volumes or to other than the mortgage records, and not generally in any other counties.

Where marginal references are found, and where books other than the one in which a canceled mortgage is recorded must be referred to in order to find the date of cancellation, the abstractor should not necessarily hunt up said date for each of said mortgages before proceeding to make his abstracts for another mortgage, but may find it advisable to make brief notes of the books and pages where said dates may be found and look up references for twenty-five or fifty mortgages at a time, unless he is working so near the volumes referred to that he may readily turn to them. In some counties, however, the references may not indicate whether it is a cancellation or not, and in these cases the abstractor must be governed by circumstances. He should work as near the record volumes of the office as public convenience and the courtesy of the recorder allow.

Cancellations made since December 31, 1889, are not to be abstracted, and the mortgages that they cancel are to be considered as uncanceled.

Abstracters should be on the lookout for marginal references to cancellations in the form of quitclaim deeds from mortgagee (or heirs or assigns) to mortgagor (or owner of the land) operating as a release; of quitclaim deeds from mortgagor to mortgagee operating as a foreclosure; of releases, so called; of foreclosures by entry; of foreclosures by power of sale, and of foreclosures by decree of court. The dates of all such cancellations should be accepted. Court records are not to be searched.

In equated life counties, where the recorder has not made note upon the margin of the record to call attention to instruments of cancellation recorded in other books, it may be found that the records of these instruments of cancellation are grouped in volumes by themselves, or nearly so. If such should be the case, there may be some way to take the dates of cancellation without turning to general index volumes, and without consuming any great amount of time.

Inquiry counties will be decided upon before the work in them begins.

In the use of the slips of series 2, in inquiry counties, a clerk will be provided to make a copy of the abstract of every uncanceled mortgage. Send one of the duplicates to the mortgagor, and upon receiving it back examine it to see that the replies to the questions are full and intelligible; if they are so found, forward the returned slip to the Superintendent of Census the next evening. Keep all duplicates not sent out for inquiry until it is learned from the Superintendent of Census that the number of slips received at the census office agrees with the number called for by the county report of the assistant special agent, or until he is directed to return the retained duplicates to the census office. All copies of abstracts should be compared with their originals in the same way that proofs are corrected by proof reader and copyholder.

When the slips that are sent to mortgagors or to mortgagees are received back with satisfactory replies, the abstractor or clerk will write the letter "R" with blue pencil upon the retained duplicate.

If a slip sent to a mortgagor is not returned within a few days, the abstractor or clerk will make two pencil copies of it, and send one of them to the mortgagee and the other, with the circular letter provided therefor, to the mortgagor again.

In the case of a mortgage having two or more mortgagors, the names and addresses of two of them should be written and the slip should be sent to the one who would be more likely to reply, or whose residence is nearer to the office of records. If no reply is received to the slip first sent out, a trial should be made with the other mortgagor. The same practice should be followed in the case of a mortgage having two or more mortgagees.

Assistant special agents and abstracters should always use their best endeavors to get replies from mortgagors, in order that the motive may be discovered, and, if necessary, they should pursue their inquiries further than they are here outlined, acting with persistence, courtesy, and discretion.

In inquiry counties, in the case of a mortgagee holding a considerable number of mortgages, the slips containing abstracts of these uncanceled mortgages should be held back and sent to the mortgagee in a bunch, or taken to him in person by an assistant special agent or abstractor, if it can be done conveniently and without expense.

(Extract from supplementary circular of instructions to assistant special agents and abstracters.)

In states where mortgages are known as "deeds of trust," distinguish these from "deeds in trust" and "trustees' deeds." Deeds in trust are not conditional conveyances to secure the payment of money, and are not to be abstracted. Trustees' deeds are foreclosures, and are not to be abstracted unless there is special direction to do so.

In a county where building and loan associations do not state in their mortgages the amount of the loan nor the rate of interest the abstractor may find it desirable to apply to the associations for information as to the amount and rate, using the mail in the cases of associations situated outside of the county seat. If the number of shares is stated, and not the amount of the loan, the par value of the shares will indicate the amount. Possibly information will be wanted in the following form:

Name of association.

Par value of shares.

Rates of interest: 1880; 1881; 1882; 1883; 1884; 1885; 1886; 1887; 1888; 1889.

If neither the amount of the loan nor the number of shares is mentioned, the debt may possibly be ascertained from an association if the slip is identified with the mortgage by a memorandum of the names of mortgagor and mortgagee under "Remarks." But an abstractor should not let slips go out of his presence, nor should he go to parts of the county outside of the county seat, for the purpose of getting amounts, unless by direction of his assistant special agent. The slips failing to show the amount of the loan should be reduced to as small a number as may be without excessive expense.

### FARMS AND HOMES: PROPRIETORSHIP AND INDEBTEDNESS.

[Schedule, in circular form, sent to persons reported by census enumerators (on population schedule) as owning and occupying mortgaged farms and homes, so as to ascertain the amount of the mortgage debt unpaid June 1, 1890, the annual rate of interest, and the object for which the debt was incurred.]

#### CENSUS OF 1890.

##### SPECIAL SCHEDULE—MORTGAGED FARMS AND HOMES.

[Extract from explanatory letter.]

An act of Congress approved February 22, 1890, requires the Superintendent of Census to obtain the information sought by the questions printed upon the second page of this circular [see schedule below] in regard to every mortgaged farm and home in the United States occupied by its owner. A census enumerator has reported that your farm is mortgaged, and you are respectfully requested to answer these questions.

The object of this investigation is to discover the condition of the people of the United States in respect to the ownership of farms and homes and the indebtedness that is a lien upon those that are occupied by owners. It is a subject of much popular interest, and everyone should recognize the importance of contributing to its general fund of information.

The incumbrance about which this inquiry is made, and also the assessed value of the property incumbered, are shown upon the public records of your county; but the debt which there appears is perhaps greater than that which you really owed on the 1st of June, 1890, and the assessed valuation of the property probably does not represent its true value.

#### SCHEDULE.

The person to whom this circular is addressed is requested to answer the following questions 1 to 4 and as many of the questions 6 to 17 as are necessary to define the object for which the incumbrances were made. Please write the word "Yes" in the space at the right of each question that should be answered in the affirmative. "Yes" or "No" should be the answer to the first question. If a farm was not cultivated, answer the questions that apply to a home. If there was no incumbrance of any kind June 1, 1890, mention that date in your answer.

1. Was there a crop lien June 1, 1890?
2. Amount of mortgages, liens, and all other kinds of incumbrances on the farm you owned and cultivated, or on the home you owned and occupied, unpaid June 1, 1890, not including interest.
3. Market value of the farm or home June 1, 1890. If there was a crop lien, report home value of crop when ready for market.
4. Annual rate of interest actually paid—at ..... per cent.

5. Object of the indebtedness:
6. Purchase money (for the incumbered real estate):
7. Purchase money (for other real estate).
8. To build with (your own home or farm buildings).
9. To build with (other buildings).
10. Real-estate improvements (not for buildings).
11. To invest in trade, manufacturing, or other business (not for improvements, buildings, or other real estate).
12. Family supplies.
13. Farm supplies (not included in question 15).
14. Family and farm supplies.
15. Farm implements, machines, and domestic animals.
16. To buy personal property (not included in other questions). Mention what was bought.
17. Please explain other reasons, if any, why the indebtedness was incurred.

## INSTRUCTIONS TO BE OBSERVED IN ANSWERING THE QUESTIONS OF THE SCHEDULE.

Please make this report as of June 1, 1890, and pay no regard to changes subsequent to that date.

It is not necessary to report second, third, and subsequent incumbrances separately. They may all be combined with the first incumbrance, unless they bear interest at different rates.

Include no valuation of real estate occupied by tenants nor the indebtedness upon the same, if it may reasonably be avoided.

An incumbrance that is a lien upon a farm or home that is occupied partly by its owner and partly by a tenant, or upon a farm or home occupied by its owner and also upon other real estate, should be apportioned, if the farm or home occupied by its owner is separable for purposes of valuation and indebtedness, and the value of only the real estate that is occupied by its owner as a farm or home and the debt that may fairly be apportioned to it should be reported.

Except as requested above, give the value of the entire real estate that constitutes the farm or home, including buildings and permanent improvements, even if the entire farm or home is not incumbered.

Do not give an extreme value to your farm or home. Except as qualified above, write the amount for which the entire farm or the entire home, with the detached portion referred to below, if any, could be sold within a reasonable time, the price either payable entirely in cash or partly secured by a safe incumbrance, according to the choice of the purchaser.

In case of crop lien, give the home value of the crop after it is harvested and when ready for market.

If the home is separated from the farm, it is to be regarded as a part thereof, and both should be included in the valuation and indebtedness if they are both occupied by the owner.

If real estate that has been two or more farms is owned and cultivated by one person, and the incumbrance does not cover all of them, nevertheless these farms should be treated as one and the value of the whole real estate should be given.

The home should be regarded as including at least a house and lot. It should include the unproductive lawns and parks connected with dwellings, and any productive piece of land, detached or not, of less than 3 acres, which is an appendage to the home, unless five hundred dollars' worth of produce has been sold from it within the year preceding June 1, 1890.

FARM TENANTS.—A person who cultivates a farm is not to be regarded as a tenant if he works for a definite or fixed compensation in money or a fixed quantity of produce; but he is to be regarded as a tenant if he pays a rental for it either in money or produce, even though he may be subject to some direction and control by the owner.

Give the actual rate of interest, regardless of what the contract may specify. If, however, the mortgage is given to a building association, the contract rate of interest should be reported, if there is any; otherwise the prevailing rate of interest for similar loans.

If the interest has been discounted and added to the principal, deduct the amount of interest so added and treat the remainder as the amount of the loan. If an incumbrance for \$1,100 for one year bears no rate of interest, and the amount actually borrowed was \$1,000, deduct \$100 from the principal as interest and give the incumbrance of \$1,000 a rate of 10 per cent. If part, instead of all, of the interest has been discounted in this way, and the incumbrance bears a rate of interest, deduct the

amount of interest that has been added to the principal and increase the specified rate correspondingly.

Whatever payments have been made should first be applied to the reduction of the discounted and other interest *due* under the contract June 1, 1890.

WHERE A SECOND INCUMBRANCE SECURES PART OR ALL OF THE INTEREST.—The amount of a second incumbrance not bearing interest, given to secure part or all of the interest of the first incumbrance, should not be added to the principal of the first incumbrance, but the percentage per annum of the amount of the said first incumbrance, upon which the amount of the second incumbrance is based, should be added to the rate of interest actually paid upon the debt secured by the first incumbrance. If the first incumbrance bears 8 per cent interest, and if, at the time the loan was made, the second incumbrance was made for an amount without interest, based upon 2 per cent of the loan per annum, return the first incumbrance at 10 per cent, and do not add to its unpaid principal the unpaid amount of the second incumbrance.

Whatever payments have been made upon either incumbrance, or both of them, should first be applied to the reduction of the amount of the second incumbrance due by contract June 1, 1890, as well as to the interest of the first incumbrance due by contract at the same date.

OBJECT OF THE INDEBTEDNESS.—If the object for which this indebtedness was incurred is not included among questions 6 to 16 upon the second page of this circular, a brief explanation is requested in answer to question 17.

In reporting the object of the indebtedness, it is more definite to mention a specific object, as in the following samples: "Speculation," "investment," "education of children," "travel," "sickness," "lawsuit," "attorney's fees," "to secure my indorsement upon the note of a friend," "failure in business," "to secure other heirs upon the settlement of an estate," "security money," "to pay a note that I indorsed for a friend," etc.

Do not use indefinite terms, as "for borrowed money," "to pay debts," "to secure a loan," "for cash," "for general purposes," or "to pay a previous mortgage."

If crop failure or other misfortune led to the debt, please so report.

If the object was to pay a previous incumbrance of your own making, please explain the object of the previous debt.

If you bought the property already incumbered, and you assumed the payment of the debt, the answer should be made to question 6.

If you borrowed money for another person to use, or incurred the debt for the benefit of another person, it is sufficient so to answer.

## RELIGIOUS ORGANIZATIONS.

[The inquiries relating to "Religion" at the censuses of 1850, 1860, and 1870 are contained in the schedule for "Social Statistics."

The special schedules used at the census of 1880 called for a separate return for each religious organization to which sent, and where the inquiries are tabular in form they have been so reproduced.

The special schedules used at the census of 1890 are tabular in form, the inquiries being printed at the heads of columns, on which 26 spaces are provided, and the entries made on horizontal cross lines, for each page of each schedule.]

## CENSUS OF 1880.

### SPECIAL SCHEDULE I.—CHURCHES.

#### I.—Inquiries as to location, clergymen, members, etc.

##### 1. Location, denomination, etc.:

State of; county of.

City, village, or town (say which).

Name of church.

Full name of denomination with which connected.

Name and full post-office address of clergymen. (In the absence of such an officer, give name and address of the officer in charge.)

Has the clergyman in charge been regularly installed, or is he temporarily engaged?

How long has he sustained the above relation to the church?

1. Location, denomination, etc.—Continued.  
 Number of different clergymen who have been in charge of this church within ten years.  
 Within twenty years.  
 If assistant clergymen are employed by this church, state how many, and for what purposes.
2. Organization, membership, etc.:  
 Date of the ecclesiastical organization of the church.  
 If the records have been preserved, please state number of original members.  
 What are the qualifications essential to membership?  
 What are the tests as to qualification for membership?  
 Number of members on roll in 1880.  
 Total increase of membership since census of 1870.  
 Number of present members under the age of 20—Males; females.  
 Number of members actually resident in the parish (exclusive of those who have removed from the parish and other permanent absentees) at the date of this report.
3. Attendance:  
 Average fair-weather attendance at morning service—church; chapel.  
 NOTE.—Reference is here made to mission chapels not organized as separate churches, but where services (other than Sunday-school) are regularly conducted under the auspices of the church.  
 Average fair-weather attendance at afternoon service—church; chapel.  
 Average fair-weather attendance at evening service—church; chapel.  
 Estimated proportion of population in the town above named who attend church services, including all sects.  
 Estimated total of church-going population.  
 Estimated total of population upon which above computations are based.
4. Other churches of this or other denominations within a radius of 3 miles:

Name and denomination of church.	Address of pastor or other officer.
(a)	(a)

a Several blank lines are printed in schedule.

## II.—Inquiries as to Sabbath schools.

5. Sabbath schools:
  - (a) Number of Sabbath schools conducted under direction of the church.
  - (b) Name and full postal address of superintendent of each.
  - (c) Total number of youth and children enrolled as members of classes:
    - Home school.
    - Mission school.
    - Total.
  - (d) Different persons in regular attendance on above school or schools:
    - Home school.
    - Mission school.
    - Total.
    - Proportion of above who are males.
6. Industrial or week-day schools:  
 Are there industrial or other week-day schools conducted under direction of this church?  
 If so, give name and full postal address of proper person or persons from whom information regarding each may be obtained.
7. Union or other undenominational Sunday schools in this town within a radius of three miles:

Name of school.	Name and address of superintendent or other officer.
(a)	(a)

a Several blank lines are printed in schedule.

## 788 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### III.—Buildings or other property.

#### 8. Buildings, etc.:

- Date when first house of worship was erected.
- Date when present house of worship was erected.
- Seating capacity of same.
- Seating capacity of chapel audience room; of mission chapel.
- If the Sabbath school occupies a separate building, when was it erected?
- What is its seating capacity?
- If the church provides a residence for the clergymen in charge, does it own it or hire it?
- If owned, in what year was it provided?

#### 9. Property owned by the church and congregation:

Property.	Value of in 1880.	Value of in 1870.	Increase of value.
Main house of worship and grounds, including organ, bell, furniture, etc.			
Chapel and grounds, including organ, bell, furniture, etc.			
Sabbath school and mission buildings and grounds, including organ, bell, furniture, etc.			
Sabbath school libraries. (Number of bound volumes )			
Other than Sabbath school libraries. (Number of bound volumes )			
Manse and grounds, including furniture, if owned by the church			
Total value of properties as above			

#### 10. Incumbrances on properties as above:

	In 1880.	In 1870.
Main house of worship—mortgages		
Other indebtedness		
Other buildings, including manse—mortgages		
Other indebtedness		

Total increase in indebtedness since 1870.

Total decrease in indebtedness since 1870.

### IV.—Income and expenditure.

#### 11. Income for year 1880:

- From pew rents.
- From subscriptions.
- From collections.
- From invested funds.
- (Amount of principal).
- From home missions or other church aid societies.
- From all other sources.
- Total income in 1880.

#### 12. Expenditures for year 1880:

- For salary of clergyman.
- For salaries of assistants.
- For choir and organist.
- For buildings and grounds (repairs, additions, etc.).
- For rents.
- For insurance.
- For miscellaneous purposes.
- For expenses of home Sabbath school.
- For expenses of mission Sabbath school.
- For parish benevolence.
- For general benevolence.
- For interest on indebtedness.
- Total expenditure in 1880.

## 13. Expenditure as compared with 1870:

	Increase.	Decrease.
For salary of clergyman .....		
For salaries of assistants .....		
For choir and organist .....		
For belongings and grounds .....		
For rents, insurance, hire of sexton, lighting, warming, etc .....		
For Sabbath schools—home; mission .....		
For parish benevolence .....		
For general benevolence .....		

Total increase in expenditure over 1870.

Total decrease in expenditure over 1870.

## SCHEDULE II.—SABBATH SCHOOLS.

Report made by .....; Post-office address; County; State.

Name of school; with what church is it connected; denomination of church with which connected.

NOTE.—Please give answers where possible in figures. When an accurate answer can not be given, say "estimated." When no answer can be given, please give the addresses of those from whom the desired information can be obtained, or place a cipher after the question.

Character of school:

Is it a church school?

Is it a mission school?

For what classes:

Is it exclusively for white children?

Is it exclusively for colored children?

Is it open to both white and colored children?

Number of children under the age of 16 in attendance in school year 1879–80:

White—Male; female; total white children under 16.

Colored—Male; female; total colored children under 16.

Number of children over the age of 16 in attendance in school year 1879–80:

White—Male; female; total white children over 16.

Colored—Male; female; total colored children over 16.

Adults in bible classes in school year 1879–80:

White—Male; female; total white adults, etc.

Colored—Male; female; total colored adults, etc.

Number of teachers and officers in school year 1879–80:

White—Male; female; total white teachers, etc.

Colored—Male; female; total colored teachers, etc.

Grand total of attendance in 1879–80.

If convenient to do so, please state the increase in total attendance as compared with 1870.

Average total attendance each Sabbath in 1879–80.

Buildings:

Has the school a building separately set apart for its use?

Is it conducted in a church, chapel, or in rented rooms?

Libraries belonging to this Sabbath school:

Whole number of bound volumes in same.

Fiction: Whole number of books of this class in library.

Historical: " " " "

Biographical: " " " "

Religious: " " " "

Geographical: " " " "

Miscellaneous: " " " "

Whole number of copies of religious papers distributed among scholars weekly.

Value of Sabbath school property:

Buildings and grounds.

Libraries.

All other property.

Total.

Total receipts for Sabbath school purposes in 1879–80.

Total expenditures for Sabbath school purposes in 1879–80.

Funds contributed for Sabbath school and other benevolent purposes by the children of this school in 1879–80.

## 790 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### INDUSTRIAL OR MISSION—WEEK-DAY SCHOOLS CONNECTED WITH SCHOOL ABOVE REPORTED.

Is there a week-day industrial or mission school conducted under the auspices of this Sabbath school or of the church with which it is connected? If so, please give statistics as follows for year 1879-80:

Has it a building specially set apart for its use, or is it conducted in church, chapel, or rented rooms?

Number of children in attendance:

White—Male; female; total.

Colored—Male; female; total.

Whole number.

Teachers in attendance:

White—Male; female; total.

Colored—Male; female; total.

Number of days on which school was taught in 1880.

General character of instruction given.

Total receipts for industrial or mission week-day school.

Total expenditures for industrial or mission week-day school.

Value of property of week-day school above reported:

Buildings and grounds.

All other property.

Total.

Remarks.

### SCHEDULE III.—ASSOCIATIONS FOR MEN AND WOMEN.

NOTE.—While accurate answers are desired, if these can not be secured, approximate information may be given. After inquiries to which no responses can be made, a cipher should be placed.

Name and full post-office address of person responding to these inquiries.

Full name of association.

Location: City, town, or village (say which); county; state of.

Is the association connected with a religious denomination, or is it conducted by those chiefly belonging to any such denomination? If so, give full name of denomination.

Is the membership confined to either sex?

State any other limitations as to membership.

In what year was the association organized?

What is the present total membership?

Male—White; colored; total.

Female—White; colored; total.

Grand total—White; colored; total.

Number of above who are honorary or other than active members.

(a) . . .crease in membership since the census of 1870.

Does it own the building which it occupies? If so, in what year was it erected?

What are the special objects of the association?

Are Sabbath-day services conducted under its auspices? If so, how many? Average total attendance upon such services each Sabbath.

Are Bible classes conducted under its auspices? If so, state number of youth instructed in same.

Male—White; colored; total.

Female—White; colored; total.

Grand total—White; colored; total.

Is week-day instruction given under its auspices? If so, state in what branches, and number instructed in each.

Upon what terms is instruction afforded to those attending the above classes?

Average number of hours per week devoted to such instruction.

Number of teachers employed in connection with the above classes:

Male—White; colored; total.

Female—White; colored; total.

Grand total—White; colored; total.

Specify the number and purposes of rooms occupied by the association.

---

a Prefix "In" or "De" to indicate increase or decrease.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 791

If the association has a reading room, give the following particulars as to the same:  
When was it first opened?

	1880.	1870.
Number of religious periodicals taken:		
Weekly .....		
Monthly .....		
Number of secular periodicals of a miscellaneous character taken:		
Weekly .....		
Monthly .....		
Number of periodicals chiefly devoted to literature, science, and the arts:		
Weekly .....		
Monthly .....		
Quarterly .....		
Number of daily newspapers taken .....		
Total number of periodicals of all kinds .....		
(a) ..crease in 1880 as compared with 1870 .....		

a Prefix "In" or "De" to indicate increase or decrease.

Average number of persons making use of reading room daily.

(a) ..crease in number of persons as above in 1880 as compared with 1870.

Libraries:

Has the association a room, or rooms, specially devoted to library purposes?

In what year was the library opened?

Whole number of bound volumes in library: In 1880; in 1870.

(a) ..crease in 1880 as compared with 1870.

Name and post-office address of librarian.

Lectures:

Has the association a lecture hall?

Are lectures regularly conducted under the auspices of the association?

If so, upon what subjects?

State whether free, or upon payment of admission fees.

Estimated average number of persons in attendance upon such lectures in 1880.

(a) ..crease in 1880 as compared with 1870.

Whole number of lectures delivered in 1880; in 1870.

Gymnasium:

Has the association a gymnasium?

Average number of persons making use of same in 1880.

If an employment bureau is conducted by this association, state number of applicants for situations in 1880: Male; female; whole number.

Number for whom situations were obtained:

	Male.	Female.	Total.
As clerks, etc .....			
As house servants .....			
As laborers .....			
As other than above .....			

a Prefix "In" or "De" to indicate increase or decrease.

## 792 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### Receipts and expenditures:

#### Receipts:

	In 1880.	In 1870.	Increase.	Decrease.
From membership fees (active members) .....				
From membership fees (honorary and other members) .....				
From interest on invested funds .....				
From subscriptions and donations .....				
From library fees .....				
From gymnasium fees .....				
From tuition fees .....				
From lectures and entertainments .....				
From all other sources .....				
Total .....				

#### Expenditures:

	In 1880.	In 1870.	Increase.	Decrease.
For salaries of officers .....				
For rent and repairs of buildings .....				
For furniture .....				
For salaries of instructors .....				
For salaries of employees .....				
For library .....				
For reading room .....				
For gymnasium .....				
For lectures and entertainments .....				
For religious work .....				
For all other purposes .....				
Total .....				

#### Value of property:

	In 1880.	In 1870.	Increase.	Decrease.
Buildings .....				
Grounds .....				
Libraries .....				
Furniture .....				
Gymnasium .....				
Other property .....				
Total .....				

#### Endowments:

	1880.	1870.
Total amount of invested funds .....		
Total amount of bequests or gifts .....		
(a) Increase in 1880 as compared with 1870 .....		

a Prefix "In" or "De" to indicate increase or decrease.

#### Remarks:

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 793

## SPECIAL SCHEDULE.—INQUIRIES RELATING TO PEACE DENOMINATIONS.

Answers to these inquiries are sought merely for the purpose of obtaining information as to the number of churches, church members, church buildings, ministers, or those occupying positions corresponding to that of minister; and other facts relating to religious organizations which may be of interest to the general public.

Names of individuals will not be published, and the information sought has no relation whatever to taxation or to military enrollment.

Name of denomination.

Organization known as .....

Located in county of .....; state of .....

The number of members connected with this organization as reported in the census schedules is .....

The members of this organization are distributed in the counties named below, as follows:

County.	No. of members.
(a)	(a)

a Several blank lines are printed in schedule.

The leading official of the organization is:

Name.

Post-office.

County of .....

State of .....

Those connected with this organization whose position corresponds to that of ministers in other organizations, such as Baptist, Methodist, etc. (in accordance with the explanation contained in the accompanying circular), are as follows:

Name.	Post-office.	County.	State.
(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

The church buildings owned by this organization are as follows:

No. in county.	Estimated seating capacity.	Estimated value of buildings.
(a)	(a)	(a)

a Several blank lines are printed in schedule.

The answers to the above inquiries were furnished by—

Name.

Post-office.

County of .....

State of .....

## SPECIAL SCHEDULE.—SPIRITUALIST SOCIETIES.

Name of place; county; state.

Name and address of person responding to these inquiries.

At what date were meetings first established?

Year in which hall was built.

Total membership in 1870.

Number of members connected with this society in 1880: Male; female; total.

Average attendance at service each Sabbath.

Value of hall, grounds, etc., if owned by society.

Value of other property belonging to society.

## 794 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Seating capacity of hall.

Income for year 1880.

Expenditure for year 1880.

Is there a children's progressive lyceum connected with this society?

Name of person in charge of same.

### CENSUS OF 1890.

#### SPECIAL SCHEDULE.—ORGANIZATIONS, CHURCH EDIFICES, SEATING CAPACITY, VALUE OF CHURCH PROPERTY, AND COMMUNICANTS.

Report of .....; State of .....

#### ILLUSTRATIVE EXAMPLE OF THE METHOD OF MAKING RETURNS.

Name of city, town, or village.	County.	Name of organization.	Edifices.	Seating capacity.	Value of church property.	Communicants or members.
					<i>Dollars.</i>	
Gaston .....	Union .....	Gaston .....	1	200	5,000	50
Canton .....	Carter .....	First .....	1	300	10,000	100
Do .....	do .....	First Chapel .....	1	100	2,500	20
Do .....	do .....	First Mission .....	1	50	1,000	5
Eltonville .....	Dart .....	St. John's .....	2	600	50,000	400
Belfast .....	Sussex .....	Station .....	[h] ..	50	.....	20
Lawton .....	do .....	Mission .....	[ph] ..	30	.....	15
Batestown .....	Essex .....	St. Peter's .....	1	200	2,500	75
Halls Crossroads ..	Boone .....	Trinity .....	[sh] ..	75	.....	30

Name of city, town, or village.	County.	Name of organization.	Edifices.	Seating capacity.	Value of church property.	Communicants or members.
(a)	(a)	(a)	(a)	(a)		(a)

a Several pages of blank lines are printed in schedules.

#### EXPLANATION OF INQUIRIES.

In so far as the statistics of religious bodies were gathered for previous censuses, the chief reliance was placed upon the generous and willing cooperation of those connected with the various denominations who were in a position to furnish the information desired. In venturing upon some modification of former plans in the hope that larger and more satisfactory results may be secured, the census office appeals to you for your assistance in the confident expectation that, appreciating the importance of a complete and accurate representation of your own with other denominations of the United States in the reports of the eleventh census, you will cheerfully contribute such effort as may be necessary to fill out the accompanying schedule of inquiries.

In order to indicate the application of the terms employed, the following explanations are given, together with an illustrative example of the method of making the returns called for.

1. "Organization" is meant to embrace churches, with or without pastors; missions or stations, when they form a separate congregation or are separately organized; chapels, when they are separate from churches and have separate services; meetings, as among the Friends, Plymouth Brethren, and others; and societies, as among the Unitarians.

2. "Church edifices" is intended to embrace all buildings owned and used for worship, whether consecrated or unconsecrated. If an organization meets in a hall, schoolhouse, or private house, indicate the fact by the use of the letter [h] in brackets in the case of a hall, [sh] in the case of a schoolhouse, and [ph] in the case of a private house, as shown in the table below. If a church and its chapel are simply different rooms under the same roof, count as one edifice only. When the chapel is under another roof, whether adjoining the church or at a distance from it, and is used by the church simply for prayer and other social meetings, count as two edifices. When two denominations own a building in partnership, indicate the proportion that belongs to the denomination for which the return is made in this schedule, as  $\frac{1}{2}$ ,  $\frac{1}{3}$ , or  $\frac{1}{4}$ , or other fractional part, as the case may be.

3. By "Seating capacity" is meant the number of persons any edifice used for worship is arranged to seat.

4. The item "Value of church property" is intended to embrace the present estimated value of buildings, with their sites, their furniture, organs, bells, etc., *owned* and used for worship. It does not include halls, or other places which are simply rented; nor parsonages, parochial school buildings, theological seminaries, monasteries, or convents (only the chapels attached thereto); nor buildings of the Young Men's Christian Association, the Woman's Christian Temperance Union, or similar organizations. Care should be taken not to count the value of chapel and mission property *twice*.

5. "Communicants" is meant to embrace all, without distinction of sex, who are privileged to participate in the ordinance of communion in denominations which observe it, and all members in other denominations, such as Unitarians, Friends, and Jews.

**SPECIAL SCHEDULE.—SUNDAY SCHOOLS, OFFICERS AND TEACHERS, AND SCHOLARS.**

Report of County of .....; State of .....; Church of .....

Name of city, town, or village.	Name of Sunday school.	Number of schools.	Number of officers and teachers.	Number of scholars.	Total officers, teachers, and scholars.
(a)	(a)	(a)	(a)	(a)	(a)

a A page of blank lines are printed in schedule.

**EXPLANATION OF INQUIRIES.**

It having been decided to include returns of Sunday schools in the statistics of religious bodies for the eleventh census, the census office is especially desirous that those returns should be complete and trustworthy. To this end the special attention of those to whom schedules are sent is directed to the following points:

1. The name and location of every Sunday school should be given distinctly, as provided for in the first two columns of the schedule.

2. Care should be taken that each of the inquiries is answered.

3. As the statistics are to be tabulated by denominations, as well as by counties and states, it is very important that schools of different denominations should not be included in the same schedule. A schedule will be provided for each denomination, and the schools of that denomination, and no others, should be entered in it, even if there be but one such school in the county. Great care will be necessary in complying with this rule. In many cases denominational names are very much alike, with but little to distinguish one from another, and to avoid mistakes it will be well to consult frequently the list of denominational titles already sent you.

4. If a church or congregation has more than one Sunday school, separate entries should be made for each school.

5. Sunday schools which are entirely independent of all denominations should be entered together in the schedule designated "Independent."

6. Union Sunday schools (not sectarian) should be entered together in the schedule designated "Union."

7. Colored Sunday schools in affiliation with white churches should be designated by the abbreviation "Col." in the column of the schedule where the name of the school is given. It is desirable that this distinction be carefully observed, in order that colored schools may be tabulated separately, if the census office deems it best so to do.

## SOCIAL STATISTICS OF CITIES.

[The special schedules used at the censuses of 1880 and 1890 called for a separate return for each department of the cities to which sent, and where the inquiries are tabular in form they have been so reproduced.]

## CENSUS OF 1880.

## SPECIAL SCHEDULE A.—ALTITUDE, TOPOGRAPHY, ETC.

## Location:

Altitude (above sea level); lowest point; highest point.

Water courses or harbor: Is the city on navigable water?

If so, describe, giving draft of water, harbor capacity, channel capacity, and river or tidal current; also important points with which water communication is open.

Railroads: Enumerate railroads and their terminal connections.

Character of tributary country: Describe the agricultural, industrial, and commercial character of the country with which the city has a local trade (this does not refer to the wide-reaching trade of the great cities, but rather to more immediate surroundings).

Topography, etc.: Describe the geological and topographical characteristics of the site, such as soil and underlying rock, variations of level, natural drainage, relative elevation of surrounding country, presence of marsh, ponds, lakes, etc. Is the country, for a radius of 5 miles, considerably wooded or open? Character of soil within this radius.

Climate: Highest recorded summer temperature; highest summer temperature in average years. Lowest recorded winter temperature; lowest winter temperature in average years.

Influence of adjacent waters.

Influence of marshes, etc.

Influence of elevated lands.

Influence of prevailing winds on climate.

History: Date of first settlement; progressive changes; ravages of fire; periods of depression; rebuilding and recovering; origin of population. Has population of one nationality or state supplanted others previously established, or become more prominent? Causes of such change.

## SPECIAL SCHEDULE B.—STREETS, ETC.

## Streets:

Total length.

Total length paved with each of the following materials:

1. Cobblestones.
2. Stone blocks.
3. Asphalt or other composition.
4. Broken stone.
5. Wood.
6. Gravel.

Cost per square yard of each, as nearly as it may be estimated.

Cost of keeping each in good repair.

Relative facility with which each is kept clean.

Quality and permanent economy of each.

Kind and character of sidewalks.

Kind and character of gutters.

Describe degree and manner of tree planting in the streets and grassed places, if any, at the sides or in the centers of the streets. Is the work of construction and repair of streets done by contract or by the day? What is the annual cost of such work?

Does your experience indicate a preference for contract or day work? State particulars.

Do you use steam stonecrusher or roller? If so, with what effect?

## Horse railroads:

Total length.

Total number of cars.

Total number of horses.

Horse railroads—Continued.

Total number of men employed.  
Total number of passengers carried during the year.  
What are the rates of fare?

Omnibus lines:

Total number of vehicles.  
Total number of horses.  
Total number of men employed.  
Total number of passengers carried during the year.  
What are the rates of fare?

Public works:

Works for water supply: Total cost.  
Natural head or pumping, and amount of pressure in either case.  
If pumping, what system? State average, greatest, and least amount pumped per diem.  
Average cost of raising 1,000,000 gallons 1 foot high: ..... cents. Yearly cost of maintenance, aside from cost of pumping. Yearly income from water rates.  
Are water meters used? If so, of what kind and to what extent, and how have they been found to affect the consumption of water?

Gas works:

Are the gas works owned by the city? What is the daily average production? What is the charge per 1,000 feet? What amount does the city pay for each street lamp? What is the number of lamps? What income from meter rates?

Public buildings:

What buildings are owned or occupied by the city for municipal uses wholly or in part?  
What is the total cost of municipal buildings belonging to the city?  
State cost of city hall separately (if city and county buildings are owned in common, so state, and give cost of city's portion).

SPECIAL SCHEDULE C.—PUBLIC PARKS AND PLEASURE GROUNDS.

Public parks and pleasure grounds:

Total area.  
Area, location, and character of the larger parks.  
Total cost.  
Cost of each of the larger parks, including land purchase and construction  
Yearly cost of maintenance of each of the larger parks.  
Number of visitors annually to larger parks on foot.  
Number of visitors annually to larger parks in carriages.  
Number of visitors annually to larger parks on horseback.  
Names of designers of larger parks.  
In what manner are the parks controlled?  
Furnish copies of the ordinances regulating the same.

SPECIAL SCHEDULE D.—PLACES OF AMUSEMENT.

Places of amusement:

Theaters, concert halls, and lecture rooms: What theaters have you, and what is the seating capacity of each?  
Do theaters pay license or other revenue to the city?  
If so, how much annually?  
Enumerate and describe concert halls and lecture rooms, not including those connected with churches.  
Concert and beer gardens: Enumerate, giving date of construction, size, cost, seating capacity, and degree and manner in which they are patronized. Make reference also to former similar places which they have superseded or succeeded.

SPECIAL SCHEDULE E.—SEWERAGE AND DRAINAGE.

Sewerage and drainage:

Please furnish as accurate a map as possible of the existing sewers of your city, or such material, including sketches, as will facilitate the making of such a map in this office. The points to be covered are, among others, the following:  
A plan of all the streets of the city with existing sewers indicated.  
Contour lines or elevations, showing the conformation of the surface.

## Sewerage and drainage—Continued.

The sizes of the different sewers to be shown by different lines, or by figures in the lines indicating interior diameters.

The material of which the sewers are constructed indicated by colors, as *red* for brick, *brown* for stone, *blue* for earthenware pipes, and *purple* for cement pipes.

Where not otherwise stated, it will be assumed that stone sewers are rectangular in form, and that other sewers are circular.

Where these forms are deviated from please indicate the deviation.

The depth of the sewers at different points to be indicated along the lines by Roman numerals—the depth being the depth of the flow-line below the crown of the street.

The plan to include the location of gully-holes or surface-water inlets, and the direction and arrangement of the pipes by which these are connected with the sewers.

A sketch showing the construction of such inlets or catch-basins, with the manner of trapping. Please state the cost of sewers of different sizes and materials at different depths, giving the information, when more convenient, in a tabular form.

Please state also the average cost of each inlet basin and its connection with the sewer.

Also the average cost of each manhole of average depth.

Please state the history of the actual sewerage work done, as, for instance, the extent to which the covering of troublesome water courses preceded other work; the extent to which private drains preceded regular sewerage; also the extent to which these private drains and covered waterways have been incorporated without change into the improved or modern system.

Are sewers now being built according to a regular plan, or is the location, depth, size, and material of each sewer regulated according to the requirements of each case as it comes up?

If a plan has been prepared for the complete sewerage of the city, please forward a copy of the same and of the report accompanying it, whether its execution has been undertaken or not, and state the action thus far taken concerning the same. If originals are sent, they will be promptly copied and returned, if so requested.

Please forward copies of ordinances relating to the connection of private drains with sewers and public drains, and to the substances which may be legally admitted thereto.

What provision, if any, is made for the ventilation of the sewers?

To what extent are hollow invert blocks for subsoil drainage used? Are they satisfactory?

Are the mouths of the sewers fully exposed, or do they deliver below the surface of the river or harbor?

What final disposition is made of the outflow of the sewers?

To what extent is it necessary to remove deposits from the sewers by hand or by artificial flushing?

What is the cost of such removal?

What is the method of paying for the constructing of the sewers; that is, is the whole cost paid by the city, or the whole by abutters, or part by each; and if the latter, what proportion by each?

So far as the cost is assessed upon the abutters, what is the basis of assessment; by front foot, by area of property, or by valuation?

As a guide to the present cost of the work, please give the contract prices for work done within the past year (1880) in the construction of sewers of different materials, sizes, and depths, separating, so far as possible, the cost of the sewer itself from that of the catch-basins and manholes. Please forward forms for contracts.

Any information not covered by the foregoing, relating to special cases, and any expression of opinion, based on experience, will be gladly received.

NOTE.—In setting forth facts relating to the condition of the cities of the United States it is desired to give especial prominence to their sanitary engineering works. City engineers will confer an especial favor by responding to the within requests as fully as possible.

## SPECIAL SCHEDULE F.—CEMETERIES.

## Cemeteries:

What is the number of cemeteries and burial grounds (public and private) connected with the city?

## Cemeteries—Continued.

Please indicate the size and location of each, and if possible furnish a map of the city, with each properly laid down, or, if at a distance, indicate the distance and direction.

Please indicate also the location and extent of churchyards and private burial grounds where interments are no longer permitted.

Please give the total number of interments in all of the cemeteries and burial grounds, so far as past records render this possible. It is desirable, where practicable, that this enumeration should indicate the number of interments for different periods in the different cemeteries and burial grounds.

Please furnish a copy of existing ordinances and regulations, or state what is the practice concerning interments as to permits, limit of time after death, depth of grave, etc.

In the case of cemeteries belonging to private corporations, please furnish such information as can be obtained concerning the disposition and ownership of lots, the restrictions concerning the use and care of lots, the character of the landscape gardening, the construction of roads and other permanent works, and, so far as practicable, the rate of charges and the revenue. It is especially desired, in connection with the principal cities, to obtain statistics as to the total and the progressive annual interments.

In so far as the foregoing suggestions fail to cover the condition of special cases, please give as minute information as possible in order that the report may show the progressive changes and the existing conditions of the whole subject of the disposal of the bodies of the dead. This is especially desirable in the case of the larger cities.

## SPECIAL SCHEDULE G.—MARKETS.

## Markets:

Please show, on a map or sketch of the city, the location of the public or corporation markets.

Please give the cost of building, the ground area, and the number of stalls of each; also the amount of space near each market or elsewhere in the public streets which may be used as standing places for farmers' and hucksters' wagons.

The following additional statistics are desirable:

The rate of rental of stalls of different classes.

The total rental of each market.

The hours during which the market is open.

The gross amount of annual sale from the stalls or within the market.

The probable proportion of the retail supply of meats, poultry, fish, and vegetables by the public and corporation markets as compared with private stores and stands.

Please furnish a copy of ordinances concerning markets, hucksters, peddlers, etc.

It is desirable, also, to have an account of the character and condition of the different market buildings.

The foregoing relates especially to retail markets. So far as possible please describe the manner of conducting the wholesale distribution of meat, poultry, fish, vegetables, etc., and, generally, give any information not distinctly asked about which, in your judgment, is necessary to a full understanding of the subject.

## SPECIAL SCHEDULE H.—SANITARY AUTHORITY.

## Sanitary authority:

What is the title of the chief health organization?

Is it an independent board, or is it the board of aldermen or other body acting as a board of health?

If an independent board, how many members has it, and what proportion of them are physicians?

What is the annual expense of the board when there is no declared epidemic, and for what uses is the expense incurred?

To what extent may the board increase its expenses during an epidemic?

What is the extent of its authority in the absence of epidemics?

What during epidemics?

Please furnish a copy of existing health ordinances.

What is the title, what the salary, and what are the powers and duties of the chief executive officer of the board?

## Sanitary authority—Continued.

- What is the mode of transacting the business of the board?
- Please furnish copy of its rules of procedure, if such exist.
- What number of assistant health officers and of inspectors are employed?
- What proportion of them are physicians?
- Have they or any of them police powers?
- Of what nature and extent?
- What is the practice concerning inspections—i. e., are they made regularly, and in all parts of the city, or only as nuisances are reported?
- When nuisances are reported, what is the procedure concerning them?
- How is the board appointed, and to what extent is its action subject to the control of the city government?
- How often does it meet?
- What is the custom concerning the inspection and correction of defective house drainage, privy vaults, cesspools, sources of drinking water?
- What concerning defective sewerage, street cleaning, etc.?
- What control does the board exercise over the conservation and removal of garbage?
- What are the regulations concerning the burial of the dead?
- What are the board's regulations concerning the pollution of streams and harbors and the removal of excrement?
- Are smallpox patients isolated? If so, in what way?
- Are scarlet-fever patients isolated (or quarantined at home), and in what way?
- Does the board take cognizance of the breaking out of contagious diseases in public and private schools, and to what extent does it control the treatment of such cases?
- Is there a public pesthouse, and where is it situated?
- Is vaccination compulsory?
- Is it done at the public expense?
- What is the system of registration of diseases and births and deaths?
- To whom does the board report; how often, and how are its reports published?
- Please state any other interesting or important facts concerning the public health authority which may be within your knowledge, and which are not covered by the above interrogatories, noting especially its relations to the medical profession in your city.

## SPECIAL SCHEDULE I.—GASLIGHT COMPANIES.

It is desired to secure answers to the questions in the annexed schedule concerning the Gaslight Company of the city of ....., which shall be as minute and accurate as possible.

## Gaslight company:

- Name of company.
- When incorporated.
- Amount of capital at date of incorporation.
- Present capital.
- Number of shares.
- Par value of shares.
- Present market value of shares.
- Amount of gas manufactured in 1860.
- Amount of gas manufactured in 1870.
- Amount of gas manufactured in 1879.
- Kinds of coal used.
- Illuminating power of gas (i. e., average as shown by tests of inspector).
- Number of consumers in 1860.
- Number of consumers in 1870.
- Number of consumers in 1879.
- Amount consumed in street lamps in 1860.
- Amount consumed in street lamps in 1870.
- Amount consumed in street lamps in 1879.
- Amount of gas consumed in public buildings (i. e., in buildings used by the several departments of the city government) in 1860; in 1870; in 1879.
- Total number of feet paid for out of city treasury in 1860.
- Total number of feet paid for out of city treasury in 1870.
- Total number of feet paid for out of city treasury in 1879.
- Total number of feet paid for by other consumers in 1860.
- Total number of feet paid for by other consumers in 1870.

## Gaslight company—Continued.

Total number of feet paid for by other consumers in 1879.

Charge per 1,000 feet to city in 1860.

Charge per 1,000 feet to city in 1870.

Charge per 1,000 feet to city in 1879.

Charge per 1,000 feet to other consumers in 1860.

Charge per 1,000 feet to other consumers in 1870.

Charge per 1,000 feet to other consumers in 1879.

Number of miles of distributing pipes.

Number of gasometers and their capacity.

What are the rights of gas companies in regard to opening and using streets?

## SPECIAL SCHEDULE J.—MUNICIPAL CLEANSING.

## Street cleaning:

Are the streets cleaned by the city, or by private abators, or both?

Is the work done by contract, or by the city's own force?

Is the cleaning done wholly by hand, or are sweeping machines used?

If the latter, to what extent?

How often is the cleaning done in streets of different classes?

How efficiently is it done?

What is the annual cost of the work to the city?

What to private persons?

Where are the sweepings deposited?

Specify merits and defects of the system or of its execution, and any disadvantage of the mode or place of final deposit.

Please furnish copy of street-cleaning ordinance now in force.

## Garbage and ashes removed:

Is garbage removed by the city, or by householders, or both?

Is the work done by contract, or by the city's own force?

What are the regulations as to the conservancy of garbage while awaiting removal?

Is it allowed to keep ashes and garbage in the same vessel?

What is the final disposal of garbage?

What of ashes?

What is the annual cost of the removal to the city, and what to private householders?

Does any nuisance or probable injury to health result from improper keeping of garbage on premises; from infrequent removal; from improper handling; or from improper final disposal?

Specify merits and defects of the system or of its execution.

Please furnish a copy of the ordinances now in force regulating the removal of ashes and garbage.

## Dead animals:

In what manner and under what regulations are dead animals removed, and how are they disposed of?

What is the annual cost of this service?

What number of dead animals of different kinds are removed annually?

Specify merits and defects of the system or of its execution.

Please furnish a copy of the ordinances now in force regulating the removal of dead animals.

## Liquid household wastes:

Is the waste water from sleeping rooms (chamber slops) disposed of in the same way as laundry waste and kitchen slops?

If differently, specify.

Is all, or nearly all, or any part of the liquid household waste of the city delivered into public sewers?

If not all, to what extent is it run into the street gutters?

To what extent into "dry wells" or cesspools on the premises?

Are such dry wells or cesspools porous, or are they nominally tight?

To what extent are they provided with overflows, and where do such overflows deliver?

If household waste is run into street gutters, what is the practice with regard to flushing them periodically?

Where cesspools or dry wells are used, do they receive the waste of water-closets?

Give any experience touching the contamination of drinking water by the overflowing or the underground escape of the contents of cesspools or privy vaults.

## Liquid household wastes—Continued.

What are the regulations concerning the cleaning out of cesspools?

Specify merits and defects of the system in use.

Please furnish a copy of the ordinances now in force regulating the disposal of liquid wastes.

## Human excreta:

What proportion of the houses of the city have water-closets, and what proportion depend on privy vaults?

What proportion of the water-closets deliver into public sewers?

What proportion into cesspools?

What proportion of the privy vaults are nominally water-tight?

What are the regulations concerning the construction and the emptying of privy vaults?

Please furnish a copy of the ordinances on the subject now in force.

To what extent is the dry-earth system used?

What ultimate disposal is made of night soil?

Is it allowed to be used for manuring land within the gathering ground of the public water supply?

## Manufacturing waste:

What is the practice and what are the regulations concerning the disposal of liquid and solid manufacturing wastes?

Specify merits and defects of the system.

Please furnish copy of ordinances now in force regulating this matter.

## SPECIAL SCHEDULE K.—POLICE.

## Police:

Please state by whom the police force is appointed, and how and by whom it is governed.

What is the title of the chief executive officer?

What are his duties and his salary?

Please give the numbers of the rest of the force in the several grades (year 1880), and the salaries of each.

What is their uniform?

What is the cost per man—do the men provide their own uniforms, or are they furnished by the city?

What arms and equipments are used by the patrolmen?

What are the patrolmen's hours of service?

What is the length of streets patrolled by the force?

Please furnish a copy of police rules and regulations.

What is the number of arrests for the past year (1880)?

Give the principal causes for such arrests.

What was their final disposition?

What was the amount of property stolen or lost during the year (1880) reported to the police?

How much of this was recovered? How much returned to owners?

What was the number of station-house lodgers during the year 1880?

What was the number of station-house lodgers during the year 1879?

Have any free meals been given to station-house lodgers during the year (1880); and, if so, at what cost to the department?

Is the police force required to cooperate with the fire department, health, or building departments; and, if so, in what way?

Are special policemen appointed? If so, by whom; for what service; and what is their standing toward the regular force?

What were the casualties in the force during the year (1880)?

What is the yearly cost of the police force (1880)?

Any information not covered by the foregoing, relating to special cases, and any expression of opinion based on experience, will be gladly received.

## CENSUS OF 1890.

## SPECIAL SCHEDULE A.—ALTITUDE, TOPOGRAPHY, ETC.

Report of the City of . . . . ., County of . . . . ., State of . . . . ., for the year ending December 31, 1889.

What is the altitude of the city above mean sea level, in feet? Highest point; lowest point; average.

Is the city on navigable water?

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 803

If so, give a brief description of the harbor facilities, wharves, etc.  
 Give a brief description of the geological and topographical characteristics of the site of the city, showing: (a) character of soil; (b) underlying rock; (c) variations of level; (d) streams and water courses; and (e) if the land, for a radius of 5 miles, is open or wooded.

## SPECIAL SCHEDULE B.—CEMETERIES.

Report of the City of ....., County of ....., State of ....., for the year ending December 31, 1889.

What is the total number and area of all cemeteries pertaining to the city? Total number; total area (in acres).

What number of these are located inside the city limits, and what is their total area in acres? Number; area.

How many cemeteries are there inside the city limits in which interments are no longer made, and what is their total area in acres? Number; area.

What is the total number of interments made in all cemeteries to date?

Of this number, how many have been made inside present limits of the city?

What has been the average yearly number of interments in all cemeteries for the past ten years?

What number of these were made inside city limits?

Please furnish a map of the city showing location of cemeteries, and indicate those in which interments are no longer made.

Please furnish a copy of the law, or ordinance, regulating the burial of the dead.

Remarks.

(Please give any facts regarding cemeteries, not covered by the above questions, that you may deem of interest.)

## SPECIAL SCHEDULE C.—DRAINAGE AND SEWERAGE.

Report of the City of ....., County of ....., State of ....., for the year ending December 31, 1889.

What is the total length, in miles, of all sewers laid in the city?

Please give the number of miles laid in each of the following diameters:

Pipe sewers.				Brick or stone sewers.					
6" to 8"	8" to 12"	12" to 18"	Over 18"	Under 12"	12" to 18"	18" to 24"	24" to 30"	30" to 36"	Over 36"

What are the diameters of the largest, and of the smallest, sewer in the city?

Largest (inches); smallest (inches).

How many outlets are there connected with the system, and where do they discharge?

Are the outlets above high-water mark, and if not, to what extent are they submerged?

Please enumerate the several parts of the system, as indicated below:

Manholes.	Catch-basins.	Hand-holes.	Lamp holes.	Flush tanks.	House connections.	Privy vaults connected with sewers.

## 804 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Please give the number of miles of sewers laid in each ward, and the number of privies and cesspools, not connected with sewers, in each ward:

Ward.	Miles of sewers laid.	No. of vaults, privies, and cess-pools.	Ward.	Miles of sewers laid.	No. of vaults, privies, and cess-pools.	Ward.	Miles of sewers laid.	No. of vaults, privies, and cess-pools.	Ward.	Miles of sewers laid.	No. of vaults, privies, and cess-pools.
1			11			21			31		
2			12			22			32		
3			13			23			33		
4			14			24			34		
5			15			25			35		
6			16			26			36		
7			17			27			37		
8			18			28			38		
9			19			29			39		
10			20			30			40		

What has been the total cost of all sewers, to date, aside from the cost of maintenance and repairs.

What has been the average yearly cost of maintenance for the past ten years?

How much of the above has been expended for cleaning?

What is the total length, in miles, of all covered drains in the city (brick or stone) intended to receive rainfall and soil water only, and not for transmission of sewage?

If not already supplied, please furnish map of your city showing location of all sewers and of all covered drains 18 inches in diameter or over.

Remarks.

(Please give any information regarding the sewer system, or the drainage, not covered by the above questions, that you may deem of interest.)

## SPECIAL SCHEDULE D.—FIRE DEPARTMENT.

Report of the City of ....., County of ....., State of ....., for the year ending December 31, 1889.

What is the total force of the department?

Into how many grades is the force divided, and what is the salary of each grade? (Give number in each grade.)

How many of the above are "regular," and how many are "on call?"

What is the title of the chief executive of the force, and what is his salary?

How many cases of serious injury occurred in the regular force during the year?

How many deaths occurred in the regular force during the year and from what causes?

Give the apparatus used by the department, as indicated below:

Steam engines.	Hand engines.	Fire extinguishers.	Hose carriages, carts, or sleds.	Hook and ladder trucks.	Ladders: Number of feet.	Aërial ladders.	Fire-escapes.	Hose: Number of feet.	Horses.

How many miles of wire and how many alarm boxes are on the fire-alarm system?

How many fires occurred during the past year?

What was the largest loss at any one fire?

What was the total loss by fire during the year?

What was the total amount of insurance involved by the fires during the year?

What has been the average annual cost of the department for the past ten years?

What are the "fire limits" of the city?

## SPECIAL SCHEDULE E.—GOVERNMENT.

Report of the City of ....., County of ....., State of ....., for the year ending December 31, 1889.

What are the designations of the several classes of city officials elected by the people, with the number in each grade and the salaries attached thereto? [i. e., 1 mayor at \$3,000 per annum; 12 aldermen at \$500 per annum each, etc.]

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 805

What is the total number of all city officials not elected by the people, and the total amount paid them yearly as salaries? Number; amount.  
 What is the title of the chief health organization?  
 How many members compose it, and how many of the members must be physicians?  
 What has been the average annual expense of the organization for the past ten years?  
 What are its powers in presence of an epidemic?  
 Please furnish a copy of the health regulations and ordinances.  
 Please furnish copies of the reports of all city officials covering December 31, 1889, as soon as the same are printed.

## SPECIAL SCHEDULE F.—LICENSES.

Report of the City of ....., County of ....., State of ....., for the year ending December 31, 1889.

Please enumerate the places of amusement in the city, their seating capacity, and license paid, as indicated below:

Class.	Number.	Total seating capacity.	Amount of license paid city.
Theaters.....			
Halls.....			
Beer gardens.....			

How many licensed drinking saloons are there in the city?  
 What is the yearly license paid by each class?  
 Are dogs licensed? If so, what is the yearly cost of each license?  
 What has been the average yearly number of dog licenses issued for the past ten years?  
 What is the estimated percentage of licensed dogs to unlicensed dogs in the city?  
 How many licensed public passenger vehicles are there in the city (exclusive of her-  
 dics, omnibuses, stages, etc., running over advertised routes)?  
 What license do they pay the city in the several classes?  
 What is the average annual receipt to the city for all the above licenses?

## SPECIAL SCHEDULE G.—PARKS.

Report of the City of ....., County of ....., State of ....., for the year ending December 31, 1889.

Please give in the table below the number, area, etc., of the parks of the city:

Total number of all parks.	Total area (in acres).	Inside city limits.		Improved.		Not open to public.	
		Number.	Total area (in acres).	Number.	Total area (in acres).	Number.	Total area (in acres).

How much area in the parks is covered by water in the form of ponds, streams, etc.?  
 How many acres comprised in the parks were donated to the city?  
 What was the original cost of the land in the parks where it was acquired by purchase?  
 How much has been expended on all parks for improvements, exclusive of maintenance?  
 What is the total length, in miles, of each class of roads, etc., in all the parks?  
 Driveways; bridleways; footways.  
 What has been the average annual cost of maintenance of all parks for the past ten years?  
 Please furnish a copy of the park rules and ordinances, and a map of the city showing location of parks.

## SPECIAL SCHEDULE H.—POLICE.

Report of the City of ....., County of ....., State of ....., for the year ending December 31, 1889.

Please give the number of men in the force, by totals or grade, and the salary of each grade.

What is the uniform of the force, and what weapons are carried by the patrolmen?

How many miles of streets are patrolled by the force?

Into how many reliefs is the force divided, and what are the hours of duty?

What has been the average annual number of arrests for the past ten years?

What has been the average annual number of station-house lodgers for the past ten years?

What has been the average annual value of all lost and stolen property recovered by the force for the past ten years?

What has been the average annual cost of the force for the past ten years?

What has been the average annual number of the force for the past ten years?

What has been the total number of deaths in the force during the past ten years:

(a) from disease? (b) from wounds or injuries received in the line of duty?

Please furnish a copy of police rules and regulations, or manual, and map of the city showing police districts.

## SPECIAL SCHEDULE I.—PUBLIC BUILDINGS.

Report of the City of ....., County of ....., State of ....., for the year ending December 31, 1889.

Please give the number and class of all buildings owned wholly or in part by the city and occupied for municipal purposes, the materials of which built and cost of construction—giving totals in each class:

Class.	Number.	Material used in construction.	Cost.	Remarks.
City Hall.....				
Court-houses.....				
Jails.....				
Police stations.....				
Engine houses.....				
Markets.....				
Hospitals.....				
Asylums.....				
Houses of Correction.....				
Poorhouses, or farms.....				
Public baths.....				
Schoolhouses.....				

What buildings are owned in common with the county?

What was the total cost of the city's portion?

What is the annual rental, if any, paid by the city for buildings used for municipal purposes?

What is the average annual amount paid by the city for the care of its buildings?

## SPECIAL SCHEDULE K.—RAILROADS.

Report of the City of ....., County of ....., State of ....., for the year ending December 31, 1889.

What is the total number, daily, of passenger trains to and from the city on your roads?

What number of these trains are for suburban travel, within a radius of 20 miles from the city?

During what hours of the day do the suburban trains move most frequently?

How many passengers are carried to and from the city annually on the suburban trains?

What proportion of these passengers are "commuters?"

## SPECIAL SCHEDULE L.—STREETS AND ALLEYS.

Report of the City of ....., County of ....., State of ....., for the year ending December 31, 1889.

What is the total length (in miles) of all streets and alleys, open and accepted, within the city limits?

Please indicate, in the table below, the number of miles of streets and alleys paved with the following materials:

Stone.		Artificial stone.	Brick.	Asphalt.		Coal-tar concrete.	Wood.	Macadam.	Gravel.
Cobble.	Block.			Sheets.	Blocks.				

Of the unpaved streets and alleys, how many miles are graded and curbed?

Of the unpaved streets and alleys, how many miles are unimproved?

What is the average width (in feet) of streets between building lines?

What are the widths (in feet) of the widest and the narrowest street in the city?

Widest; narrowest.

Please give the number of miles of paved streets and alleys in each ward:

Wards.	Miles of paved streets and alleys.	Wards.	Miles of paved streets and alleys.	Wards.	Miles of paved streets and alleys.	Wards.	Miles of paved streets and alleys.
1.....		11.....		21.....		31.....	
2.....		12.....		22.....		32.....	
3.....		13.....		23.....		33.....	
4.....		14.....		24.....		34.....	
5.....		15.....		25.....		35.....	
6.....		16.....		26.....		36.....	
7.....		17.....		27.....		37.....	
8.....		18.....		28.....		38.....	
9.....		19.....		29.....		39.....	
10.....		20.....		30.....		40.....	

What is the average proportionate width of sidewalks to streets?

Please give the number of miles of sidewalks paved with the following materials:

Brick.	Brick and stone combined.	Stone.	Asphalt, sheets or blocks.	Wood.	Cinders.	All others.

To what extent are shade trees set out along the streets inside of curb line? [Give total number set out, if known, or number of miles of streets having trees.]

Are these trees set out by the city or property owners?

How many miles of streets have grassed places between the building lines, and what is the average width of same?

What has been the average yearly cost of all street work, exclusive of cleaning, for the past ten years? Cost of construction; cost of repairs.

How often are the streets cleaned?

Is the work done by hand or by machines?

What has been the average yearly cost of street cleaning for the past ten years?

What is the final disposal of the street scrapings?

Are ashes and garbage removed by the city or by the householders?

How often are such removals made?

Are the ashes and garbage required to be kept in separate vessels?

What is the final disposal of ashes and garbage?

Please furnish copy of existing regulations as to street cleaning and the removal of ashes and garbage.

## 808 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## SPECIAL SCHEDULE M.—STREET LIGHTING.

Report of the City of ....., County of ....., State of ....., for the year ending December 31, 1889.

What is the total number of all street lamps in the city?

How many of these are private?

Please give the number of each class of public lamps, and the annual cost to the city of each class of lamps:

Class of light.	Number of lamps.	Annual cost to city of each lamp.	Remarks.
Gas .....			
Electric .....			
Vapor (a) .....			
Oil .....			

a Naphtha, gasoline, etc.

NOTE.—“The annual cost to the city of each lamp” should include the care, lighting, etc., as the *actual* total cost of each lamp to the city is desired.

## SPECIAL SCHEDULE N.—WATERWORKS.

Report of the City of ....., County of ....., State of ....., for the year ending December 31, 1889.

By whom are the waterworks owned?

What has been their total cost to date, aside from cost of maintenance and interest on debt?

Describe the source of supply, with area of its drainage basin and character of country lying within it.

What is the total daily capacity of the supply [gallons]?

Please state briefly but completely the system of works in use and what system of filtration, if any, is connected with the system [i. e., gravity, pumping—either direct or to standpipe, or to reservoir—artesian wells, etc.]?

How many reservoirs are connected with the system, and what is their total capacity [gallons]?

Number; total capacity.

What are the dimensions of, and of what material is, the standpipe? Height, ..... feet. Diameter—top, ..... feet; bottom, ..... feet; material.

What is the full daily capacity of the works [gallons]?

What is the full daily pumping capacity of the works [gallons]?

What is the average daily consumption [gallons]?

What is the highest and lowest point of supply in city [feet above mean sea-level]? Highest; lowest.

What is the pressure in the mains [lbs. to sq. in.]? Domestic; fire.

Please enumerate the several parts of the distribution system, as indicated below:

Mains.		Number of hydrants.	Number of fountains.	Number of watering troughs.	Number of standpipes for streets.	Number of taps.	Number of valves.	Number of water meters.
Miles of—	Material of—							

## HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 809

Please give the number of miles of mains laid, and the number of wells, public and private, in each ward in the city:

Wards.	Miles of mains.	Num-ber of wells.	Wards.	Miles of mains.	Num-ber of wells.	Wards.	Miles of mains.	Num-ber of wells.	Wards.	Miles of mains.	Num-ber of wells.
1 .....			11 .....			21 .....			31 .....		
2 .....			12 .....			22 .....			32 .....		
3 .....			13 .....			23 .....			33 .....		
4 .....			14 .....			24 .....			34 .....		
5 .....			15 .....			25 .....			35 .....		
6 .....			16 .....			26 .....			36 .....		
7 .....			17 .....			27 .....			37 .....		
8 .....			18 .....			28 .....			38 .....		
9 .....			19 .....			29 .....			39 .....		
10 .....			20 .....			30 .....			40 .....		

What does the city pay annually for each hydrant?

What does the city pay annually for water exclusive of hydrants?

If the works are not owned by the city, what benefit does it receive in return for the franchise granted the company?

What has been the average annual cost of maintenance of the works for the past ten years?

What has been the average yearly income from water-rents for the past ten years.

Please furnish a list of the water rates, with a description of the method, or rules, for assessing the same.

### TRADE SOCIETIES AND STRIKES AND LOCKOUTS.

[Three of the schedules used at the census of 1880 called for a separate return for each organization or society, and where the inquiries are tabular in form they have been so reproduced. The schedule calling for a statement of the date of entrance of members, age at entrance, and date when membership terminated is tabular in form, the inquiries being printed at the heads of columns and the entries made on horizontal cross lines, for which 25 spaces are provided on each sheet.]

### CENSUS OF 1880.

#### SPECIAL SCHEDULE.—TRADE SOCIETIES.

1. Name of society.
2. Post-office address of the central office: state; county; town or city.
3. Who is the presiding officer?
4. What is his official title? and his post-office address—state; county; town or city.
5. Who is the secretary or officer in charge of the records and correspondence?
6. What is his official title? and his post-office address—state; county; town or city?
7. Is your society local or has it branches in various sections of the country?
8. What is the title of the local branches of your union, as lodges, forges, divisions, etc?
9. If not local, please state the area or district within which it operates.
10. Give date of organization of your society.
11. Under what circumstances was it organized?
12. Please state what trade or trades the members of your society represent.
13. Please state in as brief a manner as possible the principal objects of your organization.
14. Will you please fill up the following blank, showing the number of actual members during the past eleven years?

States.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.
(a)											
The territories.....											
Total .....											

(a) A blank line is printed after the name of each state in the schedule.

# 810 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

15. What proportion do the members of your society bear to the workmen in the same trade who are not members?
16. What is the amount of dues or subscription per member?
17. What has been the gross income of the society during each of the eleven years ending May 31, 1880, if your society has been established so long? 1870; 1871; 1872; 1873; 1874; 1875; 1876; 1877; 1878; 1879; 1880.
18. What has been the total yearly cost of conducting the business of the organization; that is, for salaries, office expenses, printing, expenses of officers, etc.? 1870; 1871; 1872; 1873; 1874; 1875; 1876; 1877; 1878; 1879; 1880.
19. What has been the amount expended each of the past eleven years for the objects named?

Objects.	Amount expended.									
	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879. 1880.
Sick relief .....										
Burial fund .....										
Superannuated fund .....										
Accidents .....										
For support of traveling mem- bers .....										
For conducting trade disputes .....										
Donations to members or their families .....										
For other causes (mentioning causes if possible) .....										

20. What is and has been the amount of your reserve fund, if any? 1870; 1871; 1872; 1873; 1874; 1875; 1876; 1877; 1878; 1879; 1880.
21. Can you furnish a table or tables of the average or recognized rates of wages in your trade at various dates and various places in the country during a series of years so as to show the fluctuations of wages? (Inclosed with this will be found a wages schedule prepared by this office, which we would be glad to have filled out as to your trade. Any number of copies that you may desire will be forwarded to you or such parties as you may suggest.)
22. Will you state briefly the origin and result of every strike or lockout in your trade within the last five years?
23. Will you please fill out the blanks in the inclosed wages schedule as to hours of labor?
24. What is the practice in your trade as to the hiring of women and children?
25. Have you any information you can give as to the truck system in your trade, the localities in which it is enforced, relative prices, etc.?
26. Will you please state your judgment and the general impression of your members as to the safety and healthfulness of your occupation, and, if possible, give tables showing the special diseases to which members of your trade are liable, and the special dangers connected with pursuing your occupation, giving total number of deaths from accidents for a series of years?
27. Will you please inclose in your return, so far as you have them and can do so without any violation of confidence, any documents, written or printed, bearing on the subject of this investigation, such as:
  - A copy of your constitution, by-laws, etc.
  - Annual and occasional reports of the same.
  - A copy of any customs or laws, not printed.
  - Any statements, advertisements, pamphlets, defenses, or other papers published by either employers or workmen, during or relating to, a strike or lockout, or relating to trades' societies or employers' associations.
  - Any newspaper giving reports or notices of trades' arbitrations, meetings, or any other events arising out of, or in any way connected with, trades' societies or employers' associations.
  - Any local pamphlets published upon the subject.
  - Any other local documents bearing upon the subject.
28. Please make on the blank pages which follow any statement that you may choose that you think would be of importance to this investigation and of value to the public at large.

SPECIAL SCHEDULE.—NAMES AND ADDRESSES OF LABOR ORGANIZATIONS.

Name of society.

Name of secretary.

Post-office address.

(The above repeated five times in printed schedule.)

SPECIAL SCHEDULE.—MEMBERSHIP IN TRADE AND LABOR ORGANIZATIONS.

..... Society or company, of the Town of ....., of the County of ....., of the State of .....

(Signed by) .....,  
Secretary.

Statement made to the Superintendent of Census, showing the date at which each member entered the above society (column 1); his age at that time (column 2); and the date at which his membership terminated—if otherwise than by death (column 3a); if by death (column 3b).

1. Date of entrance into the society:  
Month.  
Year.
2. Age at entrance.
3. Date of termination of membership:  
(a) If otherwise than by death:  
Month.  
Year.  
(b) If by death:  
Month.  
Year.

SPECIAL SCHEDULE.—STRIKES AND LOCKOUTS.

Name of works.

Location: Town or city; county; state.

Name of individual, firm, or company operating works.

Post-office address.

Kind of goods manufactured or produced.

What was the alleged cause of the strike or lockout?

How many employees were directly concerned in it?

How many employees in the works in which the trouble occurred, who were not directly concerned in the strike or lockout, were laid idle by reason of the same?

Give an estimate of the number of employees of works other than those in which the trouble originated who were laid idle by this strike or lockout.

Give the number of working days the strike or lockout continued.

What was the total loss in wages to those directly engaged in the strike or lockout?

What was the total loss in wages to those employed in the works when the trouble originated who were not engaged in the strike or lockout, but were idle by reason of it?

Give an estimate of the amount of wages lost by the employees of other works by reason of this strike or lockout.

What was the result of the strike; that is, on what terms was work resumed?

What proportion of the strikers were given their old places?

Were there any strikes or lockouts in the same works or business in the years 1878 and 1879? If so, please give a brief account of the same.

## TRANSPORTATION.

[The special schedules used at the censuses of 1880 and 1890 called for a separate return for each company to which sent, and where the inquiries are tabular in form they have been so reproduced.]

## CENSUS OF 1880.

## SPECIAL SCHEDULE.—RAILROADS..

Information respecting the Physical Characteristics of the ..... railroad, furnished to the Superintendent of Census by .....

Post-office; County; State.

Date for which return is made ....., 1880.

## HISTORY OF CONSTRUCTION. (a)

Year when built.	From—	To—	Miles.
(b)	(b)	(b)	(b)
Total June 30, 1880.....	.....	.....	

a If this information can not be given with exactness, please give careful estimates.  
b A page of blank lines is printed in schedule.

## STATEMENT OF MILEAGE FOR DATE OF JUNE 30, 1880. (a)

## ROAD OWNED AND OPERATED BY THIS COMPANY.

Division, section or branch—how designated.	Extending—		Miles—		
	From—	To—	Of road.	Second track. (b)	Siding, etc. (c)
(d)	(d)	(d)	(d)	(d)	(d)

a Other portions of this report may be made for any date during the year 1880. This statement should in every case be for date of June 30, 1880.

b That is, double track.

c Include third and fourth track, etc.

d Several blank lines are printed in schedule.

## ROAD OWNED BY OTHER CORPORATIONS—OPERATED BY THIS COMPANY UNDER LEASE, ETC.

Corporate title of owning company.	Extending—		Miles—		
	From—	To—	Of road.	Second track. (a)	Siding, etc. (b)
(c)	(c)	(c)	(c)	(c)	(c)

a That is, double track.

b Include third and fourth track, etc.

c Several blank lines are printed in schedule.

## ROAD OWNED BY THIS COMPANY—OPERATED BY OTHER CORPORATIONS UNDER LEASE, ETC.

Corporate title of operating company.	Extending—		Miles—		
	From—	To—	Of road.	Second track. (a)	Siding, etc. (b)
(c)	(c)	(c)	(c)	(c)	(c)

a That is, double track.

b Include third and fourth tracks, etc.

c Several blank lines are printed in schedule.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 813

ROAD PARTIALLY CONSTRUCTED, IN PROCESS OF CONSTRUCTION, AND PROJECTED BY THIS COMPANY.

Present status of the work.	From—	To—	Miles.
Partially constructed—project abandoned....			
Partially constructed—stopped temporarily.			
In process of construction.....			
Definitely located—work not yet begun.....			
Projected.....			

## RECAPITULATION.

Description.	Miles of—		
	Road.	Second track. (a)	Siding, etc. (b)
Total finished road owned by this company.....			
Total road operated by this company.....			
Total road partially constructed, projected, etc.....			

a That is, double track.

b Include third and fourth tracks, etc.

## STATISTICS RELATING TO GRADES AND CURVES.

Division, section (a), or branch.				Alignment.						
From—	To—	Length.		Length of tangents.		Number of curves.	Length of curved line.		Total curvature.	
		Miles.	100ths.	Miles.	100ths.		Miles.	100ths.	Deg.	Min.
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)

## PROFILE.

Length of level track.		Ascending grades.				Descending grades.				
		Number of grades.	Sum of ascents (feet).	Length of grades.		Number of grades.	Sum of descents (feet).	Length of grades.		Maximum (feet per mile).
Miles.	100ths.			Miles.	100ths.			Miles.	100ths.	
(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)

a Break into sections or divisions beginning and ending at termini, at important cities, and at the summits of principal mountain ranges (if any).

b A page of blank lines is printed in schedule.

## LIST OF ELEVATIONS.

Station.	Above datum-plane (feet). (a)	Station.	Above datum-plane (feet). (a)
(b)	(b)	(b)	(b)

a Explanation of datum-plane.

[One blank line is printed in schedule.]

b Two pages of blank lines are printed in schedule.

## Roadway and track:

Width of gauge of track; feet; inches.

## Rails:

Steel rail in track at present time—miles; weight per yard.

In what year were steel rails first laid on your road?

Cost per ton delivered—at that time; at the present time.

Lowest price paid per ton delivered; in what year?

## 814 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## Roadway and track—Continued.

## Rails—Continued.

Iron rail in track at present time—miles; weight per yard.  
 Highest price paid per ton delivered; in what year?  
 Lowest price paid per ton delivered; in what year?  
 Present cost per ton delivered.  
 Average life of rails—steel; iron.

## Cross-ties:

Number of ties laid during the year; average cost per tie delivered.  
 Kinds of wood used for ties; kind preferred.  
 Average life of ties of different kinds of wood used on your road.

## Fence posts:

Number of fence posts used during the year; average cost per post delivered.  
 Kinds of wood used for fence posts; kind preferred.  
 Average life of posts of different kinds of wood used on your road.

## Miscellaneous:

Other unsawed timber for fencing, bridging, and other purposes—amount used during the year; value of same.  
 Are the ties, fence posts, and other unsawed timber used on your road procured on the line thereof?

If not, from what source are they procured?

## Growth and preservation of timber:

Have any trees been planted by your company during the last ten years?

If so, please state what number, what kinds, and, if possible, what number of each kind.

What is the present condition of such plantations?

Have any of the various processes for preserving timber been adopted on your road?

If so, what particular process or processes, and with what success?

Please give information in the form below respecting elevators used by your road:

Where located.	Owned or rented.	Storage capacity (bushels.)	Daily handling capacity (bushels).
(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

What is the present average charge per bushel for storage of grain at the elevators above named?

For the first ten days—in summer; in winter.

For each subsequent ten days—in summer; in winter.

How is grain carried? Sacked, per cent of whole. In bulk, per cent of whole.

What is the present average rate per hundredweight for transportation of grain from principal shipping points to tide-water?

From ..... to .....; rate per hundred. From ..... to .....; rate per hundred. From ..... to .....; rate per hundred. From ..... to .....; rate per hundred.

Please indicate in the squares below (a) in a general way, the nature of the country through which your road passes for one-half mile each side of track—the heavy black lines representing the track—(as, for instance, "Prairie," "Pine forest," "Cultivated land," "Oak forest," "Coal lands," etc.) Show the location of the principal stations by a cross, thus "X Smithville;" of principal streams by an upright parallel, thus "|| Scioto River."

Please indicate the scale of miles used.

a A page of squares is printed in the schedule.

## FUEL FOR LOCOMOTIVES.

Kinds of coal.	From what source procured.	Number of tons consumed during the year.	Average cost per ton delivered at distributing point.
(a)	(a)	(a)	(a)
Total .....	.....	.....	.....

Kinds of wood.	From what source procured.	Number of cords consumed during the year.	Average cost per cord delivered at distributing point.
(a)	(a)	(a)	(a)
Total .....	.....	.....	.....

a Several blank lines are printed in schedule.

At what price per cord is wood equivalent in value to coal at its cost price to you?

## ROLLING STOCK MANUFACTURED AT COMPANY'S SHOPS.

No.	Class.	Average weight. (Pounds.)	No.	Class.	Average weight. (Pounds.)
	Locomotives,.....drivers..... Locomotives,.....drivers..... [3 blank lines.] Cars, passenger, first-class..... Cars, passenger, second-class.. Cars, passenger .....			Cars, sleeping, parlor and dining Cars, baggage, mail, and express Cars, freight, box .....	
				Cars, freight, platform..... Other rolling stock (specifying same) .....	
				[7 blank lines.]	

REPORT of the ..... Railroad Company to the Superintendent of the Tenth Census for the year ending May 31, 1880.

Proper address of the company. [Give corporate name of company, and the place of principal business office.]

## GENERAL EXHIBIT FOR THE YEAR.

- Total income.
- Total expense (including taxes).
- Net income.
- Rentals (specifying amount to each company).  
[3 blank lines.]
- Interest accrued during year—on funded debt; on other debt.
- Dividends declared (..... per cent on preferred stock; ..... per cent on common stock).
- Balance for the year. (a)
- Balance at commencement of year.  
Add or deduct entries made in profit and loss account during the year not included in the above statement.
- Balance at commencement of year as so changed.
- Balance May 31, 1880. (a)

## ANALYSIS OF EARNINGS.

From local passengers.  
through passengers (to and from other roads).  
express.  
mails.  
other sources, passenger department.  
Total earnings from passenger department.

a State whether surplus or deficit.

From local freight.  
     through freight (to and from other roads).  
     other sources, freight department.  
     Total earnings from freight department.  
 Total transportation earnings.  
 Rents for use of road.  
 Income from all other sources (specifying same).  
 Total income from all sources.

## ANALYSIS OF EXPENSES.

1. Salaries of general officers and clerks.
2. Legal expenses.
3. Insurance.
4. Stationery and printing.
5. Outside agencies and advertising.
6. Contingencies and miscellaneous expenses.
7. Repairs of bridges (including culverts and cattle guards).
8. Repairs of buildings.
9. Repairs of fences, road crossings, and signs.
10. Renewal of rails: Tons of rails.
11. Renewal of ties.
12. Repairs of roadbed and track.
13. Repairs of locomotives.
14. Fuel for locomotives: No. tons coal; No. cords wood.
15. Water supply.
16. Oil and waste.
17. Locomotive service. (*a*)
18. Repairs of passenger, mail, baggage, and express cars.
19. Passenger train service. (*a*)
20. Passenger train supplies.
21. Mileage, passenger cars. (*b*)
22. Repairs of freight cars.
23. Freight-train service. (*a*)
24. Freight-train supplies.
25. Mileage, freight cars. (*b*)
26. Telegraph expenses. (*c*)
27. Loss and damage, freight and baggage.
28. Loss and damage, property and cattle.
29. Personal injuries.
30. Agents and station service. (*a*)
31. Station supplies.
32. Total operating expenses.
33. Taxes—State; municipal; national.
34. Total operating expenses and taxes.
35. Total amount pay rolls for the year.

## MILEAGE, TRAFFIC, ETC.

1. Passenger-train mileage. (*d*)
2. Freight-train mileage. (*d*)
3. Switching-train mileage.
4. Other train mileage.
5. Total train mileage.
6. Number of season-ticket passengers. (*e*)
7. Number of local passengers (including season).
8. Number of through passengers.
9. Total number of passengers.
10. Total passenger mileage, or passengers carried 1 mile.
11. Number tons of local freight carried.
12. Number tons through freight carried.

---

*a* Salaries, wages, etc.

*b* Debit balances.

*c* Maintenance and wages.

*d* To include only the miles shown to be run by distances between stations; allowances made to passenger or freight trains for switching to be included in answer to question 3.

*e* Computing 12 passengers per week for time of each ticket.

13. Total number tons freight carried.
14. Local freight mileage (tons local freight carried 1 mile).
15. Through freight mileage (tons through freight carried 1 mile).
16. Total freight mileage, or tons carried 1 mile.
17. Average weight of passenger trains (exclusive of passengers).
18. Average number of cars in passenger trains.
19. Average weight of freight trains (exclusive of freight).
20. Average number of cars in freight train.
21. Miles run by passenger, mail, and baggage cars. (a)
22. Miles run by passenger, mail, and baggage cars. (b)

NOTE.—Questions 21 to 32, inclusive, are optional, and are to be answered by the roads keeping such accounts.

23. Miles run by freight cars. (a)
24. Miles run by freight cars. (b)
25. Mileage local passenger. (a)
26. Mileage local passenger. (b)
27. Mileage through passenger. (a)
28. Mileage through passenger. (b)
29. Mileage local freight. (a)
30. Mileage local freight. (b)
31. Mileage through freight. (a)
32. Mileage through freight. (b)

## FREIGHT CLASSIFICATION.

Class.	Number of tons carried.		
	(a) — ward.	(b) — ward.	Total.
1. Grain .....			
2. Flour .....			
3. Provisions .....			
4. Cotton .....			
5. Live stock .....			
6. Stone, brick, lime, cement, sand, and clay .....			
7. Lumber and other forest products .....			
8. Coal .....			
9. Petroleum .....			
10. Pig, bloom, and railroad iron .....			
11. Manufactures .....			
12. Merchandise and other articles .....			
Total .....			

a East or north (stating which).

b West or south (stating which).

## BALANCE SHEET: ASSETS.

Construction account.

Equipment account.

Other permanent investments (as follows):

Lands in.

Lands in.

Stock of.

Stock of.

Stock of.

Bonds of.

Bonds of.

Bonds of.

Telegraph lines.

Cash items (as follows):

Cash.

Bills receivable.

Due from agents and companies.

Other assets (as follows):

Materials and supplies.

Sinking fund.

Debit balances.

Profit and loss balance (if any).

Total assets May 31, 1880.

a East or north (stating which).

b West or south (stating which).

# 818 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## BALANCE SHEET: LIABILITIES.

Capital stock.

Funded debt.

Unfunded debt (as follows):

Interest unpaid.

Dividends unpaid.

Notes payable.

Vouchers and accounts.

Profit and loss balance (if any).

Total liabilities May 31, 1880, as per books of company.

Present or contingent liabilities not included in the balance sheet.

Bonds guaranteed by this company or a lien on its road (specifying same).

Overdue interest on same.

Other liabilities (specifying same). (a)

## GENERAL INFORMATION IN REGARD TO ROAD.

Capital stock:

	No. of shares.	Common.	Preferred.	Total.
Authorized by law or charter.....				
Total issued.....				
Amount outstanding.....				

Par value of shares.

Total number of stockholders.

Rate of interest or dividend on preferred stock.

Funded debt:

Designation of lien. (a)	Date of issue.	Term, years.	Amount.	Interest, rate per cent per annum.	Amount of interest paid during year.
Total. (b)	(b)	(b)	(b)	(b)	(b)

a If mortgage bonds, state whether first, second, or third mortgage, etc.

b Several blank lines are printed in schedule.

Land accounts:

	Government.	States.
Total acres granted.....		
Total acres sold.....		
Number acres unsold.....		
Total amount of sales.....		
Average price per acre sold.....		

Sinking fund. [State amount of sinking fund and the class of bonds for whose redemption it is being provided.]

Rates of fare, etc.:

Average rate of fare per mile (not including season tickets) for local passengers on roads operated by this company. (b)

Average rate of fare per mile received from passengers to and from other roads.

Average rate of fare per mile for season-ticket passengers. (b)

Average rate of fare per mile received for all passengers.

Average rate of local freight per ton per mile on roads operated by this company. (b)

Average rate of freight per ton per mile received from freight to and from other roads.

a The answer to this question to include estimates, as nearly correct as possible, of all acknowledged liabilities, such as land damages, debts partially in dispute, etc., the amount of which can not be absolutely fixed and is not entered in balance sheet.

b Rate as per published tariff.

## Equipment:

1. Number of locomotives.
2. Number of passenger cars.
3. Number of mail, baggage, or express cars.
4. Number of freight cars (on basis of 8 wheels).
5. Number of other cars.
6. Maximum weight of locomotives in working order.
7. Average weight of locomotives in working order.
8. Maximum weight of tenders full of fuel and water.
9. Average weight of tenders full of fuel and water.
10. Maximum weight of passenger cars.
11. Average weight of passenger cars.
12. Average weight of mail and baggage cars.
13. Average weight of 8-wheel box freight cars.
14. Average weight of 4-wheel box freight cars.
15. Average weight of 8-wheel platform cars.
16. Average weight of 4-wheel platform cars.
17. Length of heaviest engine and tender, from center of forward truck wheel of engine to center of rear wheel of tender.
18. Total length of heaviest engine and tender over all.
19. Number of locomotives equipped with train brake. Kind of brake.
20. Number of cars equipped with train brake. Kind of brake.
21. Number of miles of road furnished with telegraph facilities and by whom owned.

## EXPRESS AND TRANSPORTATION COMPANIES, ETC.

- Brief statement of all existing contracts and agreements with express companies.  
Amount received from same.
- Brief statement of all existing contracts and agreements with sleeping-car or dining-car companies.  
Amount received from same or paid to same: Received; paid.
- Brief statement of all existing contracts and agreements with freight or transportation companies.  
Amount received or paid to same: Received; paid.
- Brief statement of all existing contracts and agreements with other railroad companies, steamboat or steamship companies, or other companies or persons, concerning the transportation of freight or passengers.  
Amount received or paid to same: Received; paid.
- Brief statement of the terms and conditions of all existing leases affecting this company (giving corporate names of parties), including all contingent liabilities.

## DESCRIPTION OF ROAD.

- Length (a) of main line of road from ..... to .....  
Length of main line of road in .....  
Length of main line of road in other states.  
Length of main line of road in other states.  
Length of double track on main line.  
Same in .....  
Branches owned by company:  
From ..... to ..... Track (b); length.  
[Track, etc., repeated four times.]  
(Name and description of each single or double track.)  
Total length of branches owned by company.  
Total length of branches owned by company.  
Length of branches owned by company in other states.  
Length of branches owned by company in other states.  
Length of branches owned by company in other states.  
Length of double track on branches.  
Same in .....  
Total length of road belonging to this company.  
Aggregate length of sidings and other tracks not above enumerated.  
Same in ..... (c).

---

*a* Length in all cases to be given in miles and decimals.  
*b* Whether single or double.  
*c* Naming the different states.

## 820 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Aggregate length of track, computed as single track.

Same in ..... (a)

Total length of steel rails in tracks, not including steel-top rails.

[Weights per yard.]

Roads and branches belonging to other companies, operated by this company under lease or contract:

Name, description, and length of each: From ..... to .....; length (b).

[Repeated four times.]

Total length of above roads.

Total miles of road operated by this company. (c)

Total miles of road operated by this company in .....

Number of stations on all roads operated by this company.

## LIST OF ACCIDENTS.

	From causes beyond their own control.		From their own misconduct or carelessness.		Total on whole road operated.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Passengers .....						
Employees .....						
Others .....						

## AVERAGE NUMBER OF PERSONS EMPLOYED.

General officers.

General office clerks.

Station men.

Engineers.

Conductors.

Other train men.

Machinists.

Carpenters.

Other shop men.

Track men.

All others.

Total average number of persons employed.

## SPECIAL SCHEDULE.—STEAMBOATS.

Statement of the ..... Steamboat Company, for the year ending ....., 1880.

Description of the route.

Length of route—miles.

Length of season—months.

Capital stock, etc.:

Amount of capital stock paid in.

Number of shares issued.

Par value of stock.

Number of stockholders.

Total amount invested in property.

Income:

Income from passengers.

Income from freights.

Miscellaneous income.

Total income.

Expenses:

Paid for labor and salaries.

Paid for fuel.

Paid for repairs.

Other expenses.

Total expenses.

Dividends declared (..... per cent).

*a* Naming the different states.

*b* Length to be given in miles and decimals, and not to include sidings or double track.

*c* Not to include sidings or double track.

Traffic, etc.:

Number of passengers carried.  
 Rate of fare per mile for trip—cents.  
 Rate of fare per mile compared with railroads for same distance—cents.  
 Number of tons of freight carried.  
 Rate charged per mile—cents.  
 Rate compared with rail freights for same distance—cents.  
 Average number of persons employed.  
 Kind of fuel used.  
 Number of tons of coal used.  
 Number of cords of wood used.

Class of freight:

Grain—tons.  
 Flour—tons.  
 Provisions—tons.  
 Cotton—tons.  
 Live stock—tons.  
 Stone, brick, lime, cement, and clay—tons.  
 Lumber—tons.  
 Coal—tons.  
 Petroleum—tons.  
 Iron—tons.  
 Iron ore—tons.  
 Manufactures—tons.  
 Merchandise—tons.  
 Total number of tons.

Accidents:

Number of passengers killed or injured.  
 Number of employees killed or injured.  
 Number of other persons killed or injured.  
 Total.

Names of boats:

Steamers—number.  
 Propellers—number.  
 Yachts—number.  
 Tugs—number.  
 Total—number.

SPECIAL SCHEDULE.—EXPRESS COMPANIES.

Report of the ..... Express Company, for the year ending .....

NOTE.—Report should be made for the fiscal year of the company having its termination nearest to the 1st day of June, 1880.

Proper address of the company. (Give corporate name of company, and the location of the principal business office.)

GENERAL EXHIBIT FOR THE YEAR.

Total receipts for the year.

Expenses for the year (specified as follows):

Amount paid to railroads.  
 Amount paid to steamboats and other vessels.  
 Amount paid to stage (or coach) companies.  
 Amount paid for salaries.  
 Amount paid for repairs.  
 Amount paid for general expenses.  
 Amount paid for all other expenses.  
 Total.

Net income for the year.

Interest paid on debt.

Dividends declared (..... per cent).

Balance for the year.

BALANCE SHEET, ....., 18...

Assets:

Franchises.  
 Cash.  
 Bills receivable.  
 Accounts receivable.  
 Total.

# 822 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## Liabilities:

Capital stock.  
Funded debt.  
Other debt.  
Profit and loss.  
Total.

## CAPITAL STOCK.

(Par value of shares, .....)

	Number of shares.	Common (amount).	Preferred (amount).	Total (amount).
Authorized by law or charter.....				
Issued for cash.....				
Issued for dividends.....				
Total issued.....				

## STOCK DIVIDENDS DECLARED.

Date.	Amount.	Per cent.	Number of shares.	Total stock issued for dividends.

## LENGTH OF LINES OPERATED.

How operated.	Miles.
By means of railroads.....	
By means of steamers or other vessels.....	
By means of stages or coaches.....	
By means of.....	
Total.....	

## Average number of persons employed:

General officers.  
General-office clerks.  
Agents.  
Assistants.  
Messengers.  
Other men employed on trains.  
Drivers of wagons.  
All others.  
Total.

## SPECIAL SCHEDULE.—EXPRESS BUSINESS.

Return of the express business carried on by ..... for the twelve months ending  
....., 1880.

Capital invested.

Total receipts.

Total expenses.

Length of routes:

By railroad.

By steamers.

By roads, etc.

Number of persons employed.

Salaries and wages of same for the year.

Number of horses used.

Number of wagons used.

## SPECIAL SCHEDULE.—TELEGRAPH COMPANIES.

Report of the ..... Telegraph Company to the Superintendent of Census for the year ending .....

Proper address of the company. (Give corporate name of company, and the location of the principal business office.)

## GENERAL EXHIBIT FOR THE YEAR.

Receipts from messages sent.

Receipts from other sources.

Total receipts for the year.

Expenses for the year (specified as follows):

Salaries.

General expenses.

Repairs.

All other expenses.

Net income for the year.

Interest paid on debt.

Dividends declared (..... per cent).

Balance for the year.

## BALANCE SHEET, ....., 18..

Assets—amount:

Franchises.

Cash.

Bills receivable.

Accounts receivable.

Total.

Liabilities—amount:

Capital stock.

Funded debt.

Other debt.

Profit and loss.

Total.

## CAPITAL STOCK.

(Par value of shares, .....)

	Number of shares.	Common (amount).	Preferred (amount).	Total (amount).
Authorized by law or charter.....				
Issued for cash.....				
Issued for dividends.....				
Total issued.....				

## STOCK DIVIDENDS DECLARED.

Date.	Amount.	Per cent.	Number of shares.
(a)	(a)	(a)	(a)
Total stock issued for dividends .....			

a Several blank lines are printed in schedule.

Messages transmitted:

Number of messages transmitted for the press.

Number of messages transmitted by officers of the United States.

Number of messages transmitted for private parties.

Total number of messages transmitted.

Description of lines:

Total length of lines—miles.

Total miles of wire.

Number of stations or offices.

Principal and terminal stations.

## Equipment and service account:

Number of poles set during the year.

Average cost of poles delivered at distributing points.

Average length and diameter of poles (or average feet, board measure, in each, if preferred):

Kinds of wood used.

Kinds of wood preferred.

Regions of country from which your poles are procured.

Average life of poles of the different kinds of wood used on your line.

Have any of the various processes for preserving timber been applied to the poles on your line?

If so, what process or processes were used, and with what success?

Are any of your poles sawed or squared when received?

If so, what proportion have been so treated?

(The last two questions apply chiefly to the extreme Western lines.)

## Average number of persons employed:

General officers.

General office clerks.

Operators.

Messengers.

All others.

Total.

## SPECIAL SCHEDULE.—TELEPHONE-TELEGRAPH COMPANIES.

Report of the ..... Telephone-Telegraph Company to the Superintendent of Census, for the date of .....

Proper address of the company. (Give corporate name of company, and the location of the principal business office.)

## General exhibit for the year:

Receipts from rent of apparatus.

Receipts from other sources.

Total receipts for the year.

## Expenses for the year (specified as follows):

Salaries.

For rent and apparatus.

Repairs.

All other expenses.

Net income for the year.

Interest paid on debt.

Dividends declared (..... per cent).

Balance for the year.

[Inquiries numbered 6 to 8, inclusive, in schedule relating to telegraph companies are common to this schedule and are not here reproduced; except that in inquiry number 7, "Capital Stock," the question "Part paid up subscriptions" is added in the table.]

## Equipment and service account:

Number of circuits.

Total miles of wire.

Average cost per mile.

Number of poles set during the year.

Average cost of poles delivered at distributing points.

Average length and diameter of poles (or average feet, board measure, in each, if preferred).

Kinds of wood used.

Kinds of wood preferred.

Region of country from which your poles are procured.

Average life of poles of the different kinds of wood used on your lines.

Have any of the various processes for preserving timber been applied to the poles on your lines?

If so, what process or processes were used, and with what success?

Are any of your poles sawed or squared when received?

If so, what proportions have been so treated?

(The last two questions apply chiefly to the extreme Western lines.)

Number of central offices.

Number of subscribers' stations.

Number of receiving telephones in use.

Number of battery transmitters in use.

## Equipment and service account—Continued.

Number of cells open circuit battery.

Number of cells closed circuit battery.

Kind of telephone used.

Kind of transmitter used.

## Average number of persons employed:

General officers.

General office clerks.

Switch operators.

Table operators.

Line and battery men.

Messengers.

All others.

Total.

## Historical:

Please state when the telephone was introduced into your city or town, giving the date when communication was first established between the points for *business purposes*.

Date of establishing your central district or exchange system.

## Remarks:

Under this head give any essential facts that you may have showing the growth of the telephone-telegraph system in your city or town, together with the first form of apparatus used, etc.

## CENSUS OF 1890.

## SPECIAL SCHEDULE.—STEAM RAILROADS.

Report of ....., on Transportation by Rail from 1880 to 1889, inclusive.

## A.—ANALYSIS OF MILEAGE.

Years.	Total length of line operated.	Length of operated line owned.	Length of operated line leased or otherwise controlled.	Length of operated line used under trackage rights.
1880 .....				
1881 .....				
1882 .....				
1883 .....				
1884 .....				
1885 .....				
1886 .....				
1887 .....				
1888 .....				
1889 .....				

## EXPLANATION OF A.

Give the following facts: First, give name of new lines constructed since 1880, not included under *extension* of lines operated, and date at which such lines were put in operation; second, give name of lines which, since 1880, by purchase, lease, or contract, have been absorbed into the operating system covered by this report, and date of such purchase, lease, or contract; third, give corresponding facts for mileage released from operation since 1880 by company making this report, and state to what company the control of such mileage was transferred.

## INSTRUCTIONS FOR MAKING REPLY TO QUESTIONS.

By "length of line" is intended miles of single track between terminals.

Under "line owned" is to be included line which is the corporate property of the company making report.

Under "line operated" is to be included line of the operating system, the receipts from which are included in the income account of the company making report.

Under "line leased or otherwise controlled" is included all mileage making a part of the operating system exclusive of line owned and line operated under trackage rights.

## 826 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## B.—BUSINESS DONE.

Years.	Freight traffic.		Passenger traffic.		Train mileage.		
	Tons of freight moved.	Tons of freight moved one mile.	Number of passengers carried.	Number of passengers carried one mile.	Freight.	Passenger.	All other.
1880.....							
1881.....							
1882.....							
1883.....							
1884.....							
1885.....							
1886.....							
1887.....							
1888.....							
1889.....							

## Explanation of B.

[Several blank lines are printed in schedule.]

## INSTRUCTIONS FOR MAKING REPLY TO QUESTIONS.

The ton used in this computation should be the ton of 2,000 pounds.  
 In making returns of tonnage moved company's material should be excluded.  
 Under freight-train mileage and passenger-train mileage it is intended to include trains earning revenue only.

## C.—EQUIPMENT AND STATIONS.

	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889
Locomotives:										
Freight.....										
Passenger.....										
Switching.....										
Total.....										
Cars in passenger service:										
Ordinary passenger cars.....										
Sleeping cars.....										
Parlor cars.....										
Dining cars.....										
Baggage cars.....										
Postal cars.....										
Express cars.....										
Total.....										
Cars in freight service:										
Box cars.....										
Flat cars.....										
Stock cars.....										
Coal cars.....										
Tank cars.....										
Refrigerator cars.....										
Other cars.....										
Total.....										
Cars in company's service.....										
Cars contributed to fast-freight service.....										
Number of stations on line.....										

## Explanation of C.

[Several blank lines are printed in schedule.]

## INSTRUCTIONS FOR MAKING REPLY TO QUESTIONS.

Engines designed for and mainly used in freight, passenger, or switching service should be classified accordingly, regardless of occasional different use. Should there be no difference in design, the engines should be divided about as they are divided in service.

In case of combination cars, as, for example, cars of which one part is fitted up for baggage and the other part for express, returns should be made in proportion to the space given to the respective services.

Under "number of stations on line" it is desired that the number of places on the line of a road where the public may do business with the company's agents should be stated. General ticket offices or freight offices in cities situated away from the railroad line are not to be included. Platforms or crossings at which trains stop, but where there is no agent for the sale of tickets, are not to be included. A ticket office and a freight office in the same town, under the management of one agent, are to be counted as one station, although the passenger business and the freight business may be done in separate buildings.

## D.—EARNINGS AND INCOME.

Years.	Gross earnings from operation.			Income from all other sources.	Total earnings and income.	Per cent of operating expenses to earnings.
	Total gross earnings.	Earnings from freight traffic.	Earnings from passenger traffic.			
1880.....						
1881.....						
1882.....						
1883.....						
1884.....						
1885.....						
1886.....						
1887.....						
1888.....						
1889.....						

## Explanation of D.

[Several blank lines are printed in schedule.]

## E.—ANALYSIS OF EXPENDITURES.

Years.	Operating expenses.	Interest on funded debt.	Rentals.	Taxes.	Dividends.	Total expenditures, including miscellaneous.	Balance. [Mark surplus +.] [Mark deficit —.]
1880.....							
1881.....							
1882.....							
1883.....							
1884.....							
1885.....							
1886.....							
1887.....							
1888.....							
1889.....							

## Explanation of E.

[Several blank lines are printed in schedule.]

## INSTRUCTIONS FOR MAKING REPLY TO QUESTIONS.

Under "D—Earnings and Income," and "E—Analysis of Expenditures," it is intended to take account of such moneys only as arise in the ordinary financial transactions of the road; that is to say, moneys that come from operation of the road or from property owned by the road in its corporate capacity, such as stocks, bonds, and the like. Any extraordinary revenue, such as arises from sale of new bonds, or the issue of new stock, or the sale of lands other than casual dealings in real estate, is to be excluded.

## 828 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## F.—ANALYSIS OF OPERATING EXPENSES.

Years.	Maintenance of way and structures.	Maintenance of equipment.	Conducting transportation.	General expenses.	If other expenditures are here entered, explain items in full.
1880.....					
1881.....					
1882.....					
1883.....					
1884.....					
1885.....					
1886.....					
1887.....					
1888.....					
1889.....					

Explanation of F.

[Several blank lines are printed in schedule.]

## INSTRUCTIONS FOR MAKING REPLY TO QUESTIONS.

It is desired that the classification of operating expenses prescribed by the Interstate Commerce Commission should be followed as closely as possible.

## G.—EMPLOYEES (AVERAGE FOR THE YEAR).

Years.	Total.	Analysis of employees.				
		Employed in maintenance of way and structures.	Employed in maintenance of equipment.	Employed in conducting transportation.	Employed in general administration.	If other employees are added, give full explanation.
1880.....						
1881.....						
1882.....						
1883.....						
1884.....						
1885.....						
1886.....						
1887.....						
1888.....						
1889.....						

Explanation of G.

[Several blank lines are printed in schedule.]

## GENERAL INSTRUCTIONS.

This schedule for the collection of statistics on railways in the United States calls for a few simple facts for the years 1880 to 1889, inclusive. Nothing is required that does not pertain to the operations of the roads, and which can not be easily obtained from annual reports to stockholders.

In no other way can the industrial progress of the country and the territorial distribution of its business be so clearly exhibited as by a careful compilation of the facts outlined in this schedule, and it is believed that the managers of all railways will readily avail themselves of this opportunity to cooperate in a work of such great public interest.

## SPECIAL SCHEDULE.—STEAM RAILROADS: OPERATING.

Report of ....., on Transportation by Rail for the year ending June 30, 1890.

## MILEAGE.

By "Line owned" is meant line represented by capital stock of company making report.

By "Line operated but not owned" is meant the line of all subsidiary companies assigned to the company making this report for purpose of operation.

## HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 829

Under "New line constructed during the year" is desired a statement of all lines the construction of which enters into the construction account of the company making this report; and under "New line taken into operation during the year" is desired a statement of that portion of the line constructed on which operations have been begun during the year ending June 30, 1890.

### A.—MILES OF ROAD OPERATED.

Line in use.	Line owned.	Line operated but not owned.	Line operated under trackage rights.	Total mileage operated.	New line constructed during the year.	New line taken into operation during the year.
Miles of single track .....						
Miles of second track .....						
Miles of third track .....						
Miles of fourth track .....						
Miles of yard track, sidings and spurs .....						
Total mileage operated (all tracks) .....						

### B.—MILEAGE OF LINE BY STATES AND TERRITORIES.

State or Territory.	Line owned.	Line operated but not owned.	New line constructed during the year.	Total mileage, excluding trackage rights.	Rails (line owned).	
					Iron.	Steel.
(a)	(a)	(a)	(a)	(a)	(a)	(a)
Total mileage operated (single track) .....						

a Several blank lines are printed in schedule.

If new line has been constructed not given above, for which the company making this report is financially responsible, state the amount of such mileage, giving explanation of same by letter. No. miles.

### INCOME ACCOUNT.

This may be filled out from the entries on page 31 of the report to the Interstate Commerce Commission for the year ending June 30, 1890.

Gross earnings from operation.

Less operating expenses.

Income from operation.

Interest on bonds owned.

Dividends on stocks owned.

Miscellaneous income, less expenses.

Income from other sources.

Total income.

Deficit.

Deductions from income:

Interest on funded debt accrued during the year.

Interest on interest-bearing current liabilities accrued, not otherwise provided for.

Rentals.

Taxes.

Permanent improvements charged to income account.

Other deductions:

Total deductions from income.

Net income.

Deficit.

Dividends, ..... per cent preferred stock.

Dividends, ..... per cent common stock.

Other payments from net income.

Total.

Surplus for the year ending June 30, 1890.

Deficit for the year ending June 30, 1890.

## GENERAL BALANCE SHEET.

This may be filled out from entries on pages 23, 49, and 51 of the annual report to the Interstate Commerce Commission for the year ending June 30, 1890. "Interest on funded debt, accrued but unpaid," should include the amount of "Matured interest coupons unpaid," as returned on page 23 of the Interstate Form, and "Accrued interest on funded debt not yet payable," as returned on page 51 of the Interstate Form.

## Assets:

- Construction.
- Equipment.
- Lands.
- Stocks.
- Bonds.
- Other permanent investments.
- Total permanent investments.
- Cash.
- Bills receivable.
- Due from agents and companies.
- Debit balances.
- Materials and supplies.
- Sinking fund.
- Other assets.
- Total current assets.
- Profit and loss.
- Total.

## Liabilities:

- Preferred stock.
- Common stock.
- Total stock.
- Mortgage bonds.
- Miscellaneous obligations.
- Income bonds.
- Total funded debt.
- Interest on funded debt, accrued but unpaid.
- Dividends declared but unpaid.
- Notes payable.
- Vouchers and accounts, wages and salaries.
- Rentals and miscellaneous.
- Total unfunded debt.
- Profit and loss.
- Total.

## EARNINGS FROM OPERATION.

For distinction between local and through traffic, see instructions in this schedule under "Traffic and mileage."

The amount returned as passenger revenue and freight revenue are total receipts less repayments; as for tickets redeemed, excess fares, overcharges to shippers, and the like.

Under "Other items assignable to passenger service" are included receipts for extra baggage, storage, and miscellaneous items charged to passenger service.

Under "Other items assignable to freight service" are included receipts from stock yards, elevators, and miscellaneous items charged to freight service.

Under "Other earnings from operation" are included car mileage, balance; switching charges, balance; rentals; receipts from telegraph companies; and other earnings from operation not directly assignable to either passenger or freight service.

## Passenger service revenue:

- Local passenger.
- Through passenger.
- Total passenger revenue.

- Express.

- Mails.

- Other items assignable to passenger service.

- Total passenger service earnings.

## Freight service revenue:

- Local freight.

- Through freight.

- Total freight revenue.

## Freight service revenue—Continued.

Other items assignable to freight service.

Total freight service earnings.

Other earnings from operation.

Total gross earnings from operation.

## OPERATING EXPENSES.

The amount returned for items named should conform to returns made to the Interstate Commerce Commission, on pages 43 and 45 of the form for report for the year ending June 30, 1890. The figures which appear below in the second column show what items in the report to the commission should be returned in the report to the census office. For example, under "Agents and station service" should be given the sum of items 22, 23, and 24, on page 43 of the Interstate Form.

	Numbers refer to items on pages 43 and 45 of Inter- state Form.	Total.		
Maintenance of way and structures:				
Repairs of roadway .....	1			
Renewals of rails .....	2			
Renewals of ties .....	3			
Repairs of bridges and culverts .....	4			
Repairs of fences and crossings .....	5			
Repairs of buildings .....	6			
Repairs of telegraph .....	8			
Other expenses .....	7, 9			
Total .....				
Maintenance of equipment:				
Repairs and renewals of locomotives .....	10			
Repairs and renewals of passenger cars .....	11			
Repairs and renewals of freight cars .....	12			
Other expenses .....	13, 14, 15		Charged to passenger service.	Charged to freight service.
Total .....				
Conducting transportation:				
Locomotive service .....	16			
Fuel for locomotives .....	17			
Water supply .....	18			
Other locomotive supplies .....	19			
Train service .....	20			
Train supplies .....	21			
Car mileage and switching charges, bal- ances .....	26, 27			
Agents and station service .....	22, 23, 24			
Station supplies .....	25			
Loss and damage .....	28			
Injuries to persons .....	29			
Other expenses .....	30, 31			
Total .....				
General expenses:				
Salaries of general officers and clerks, in- cluding supplies .....	32, 33, 34			
Outside agencies and advertising .....	35, 36, 37, 39, 40, 41			
Insurance .....	38			
Legal expenses .....	44			
Stationery and printing .....	45			
Other general expenses .....	42, 43, 46			
Total .....				

## FREIGHT TRAFFIC MOVEMENT.

(Company's material excluded.)

Commodity.	Freight originating on this road. (Whole tons.)	Freight received from connecting roads and other carriers. (Whole tons.)	Total freight tonnage.	
			Whole tons.	Per cent.
Products of agriculture:				
Grain .....				
Flour .....				
Other mill products .....				
Hay .....				
Tobacco .....				
Cotton .....				
Fruit and vegetables .....				
Products of animals:				
Live stock .....				
Dressed meats .....				
Other packing-house products .....				
Poultry, game, and fish .....				
Wool .....				
Hides and leather .....				
Products of mines:				
Anthracite coal .....				
Bituminous coal .....				
Coke .....				
Ores .....				
Stone, sand, and other like articles .....				
Products of forest: Lumber .....				
Manufactures:				
Petroleum and other oils .....				
Sugar .....				
Naval stores .....				
Iron, pig and bloom .....				
Iron and steel rails .....				
Other castings and machinery .....				
Bar and sheet metal .....				
Cement, brick, and lime .....				
Agricultural implements .....				
Wagons, carriages, tools, etc. ....				
Wines, liquors, and beers .....				
Household goods and furniture .....				
Merchandise .....				
Miscellaneous: Other commodities not mentioned above .....				
Total tonnage .....				

## TRAFFIC AND MILEAGE.

By through traffic is to be understood traffic which is received from or assigned to other roads; by local traffic is to be understood traffic which originates and terminates on the road covered by this report.

Number of passengers carried—local traffic.

Number of passengers carried—through traffic.

Total number of passengers carried.

Of total number of passengers carried—

  How many were carried on regular tickets?

  How many were carried on book, season, or commutation tickets? (a)

  How many were carried on excursion tickets?

  How many were carried on free passes?

Number of tons of freight carried—local traffic.

Number of tons of freight carried—through traffic.

Total number of tons of freight carried.

Number of passengers carried 1 mile.

Number of tons of freight carried 1 mile.

Miles run by passenger trains.

Miles run by freight trains.

Miles run by mixed trains.

Total mileage of trains earning revenue.

<sup>a</sup> The census office in 1880 estimated twelve passengers per week for every holder of a season ticket. If any estimate of this sort is used to make returns of above figures, state rule for estimate.

Miles run by switching trains.  
 Miles run by construction trains.  
 Grand total train mileage.

## EQUIPMENT AND STATIONS.

Engines designed for and mainly used in freight, passenger, or switching service should be classified accordingly, regardless of occasional different use. Should there be no difference in design, the engines should be divided about as they are divided in service.

In case of combination cars, as, for example, cars of which one part is fitted up for baggage and the other part for express, returns should be made in proportion to the space given to the respective services.

Under "Number of stations on line" it is desired that the number of places on the line of a road where the public may do business with the company's agents should be stated. General ticket offices or freight offices in cities situated away from the railroad line are not to be included. Platforms or crossings at which trains stop, but where there is no agent for the sale of tickets, are not to be included. A ticket office and a freight office in the same town, under the management of one agent, are to be counted as one station, although the passenger business and the freight business may be done in separate buildings.

## Locomotives:

Freight.  
 Passenger.  
 Switching.  
 Total.

## Cars in passenger service:

Ordinary passenger cars.  
 Sleeping cars.  
 Parlor cars.  
 Dining cars.  
 Baggage cars.  
 Postal cars.  
 Express cars.

Total cars in passenger service.

## Cars in freight service:

Box cars.  
 Flat cars.  
 Stock cars.  
 Coal cars.  
 Tank cars.  
 Refrigerator cars.  
 Other cars.

Total cars in freight service.

Total cars in company's service.

Cars contributed to fast freight service.

Number of stations on line.

## CONTRACTS AND AGREEMENTS.

Give a concise statement of all contracts, agreements, arrangements, etc., with other companies or persons concerning the transportation of freight or passengers. In stating the contract, give date of contract, duration of contract, nature of service which is the basis of the contract, amount of compensation or method of computing compensation agreed upon, and such other facts as may be necessary for classifying the contract. Give the statement in the following order, viz: 1. Express companies. 2. Mails. 3. Sleeping, parlor, or dining car companies. 4. Freight or transportation companies or lines. 5. Other railroad companies. 6. Steamboat or steamship companies. 7. Telegraph companies. 8. Other contracts.

## GENERAL INSTRUCTIONS.

In drawing up this schedule two ends have been kept in view: First, to secure data in such a manner that comparison may be made between the facts published by the census of 1880 and those collected and compiled by the census of 1890; and, second, to draft a schedule that should be in substantial harmony with the Form for Annual Report issued by the Interstate Commerce Commission. It is suggested

## 834 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

that the report to the Interstate Commerce Commission and to the census office be compared with each other, so that there may be no discrepancies between them.

This schedule is designed exclusively for "Operating companies." Should it by error come into the hands of the officers of a "Subsidiary company," it should be returned to the census office, and at the same time a request made for a schedule designed for operating roads. Should additional schedules be desired, notification of this fact will be promptly attended to.

This schedule should be filled out and returned to the census office, division of transportation, by September 15, 1890.

## SPECIAL SCHEDULE.—STEAM RAILROADS: SUBSIDIARY.

Report of ....., on Transportation by Rail for the year ending June 30, 1890.

## MILEAGE.

By "Line owned" is meant line represented by capital stock of company making report.

In the column headed "Line not owned" should be given the mileage of a company subsidiary to the subsidiary company making this report. Only in case a lessor road is also a lessee road should any figures be returned in this column.

In the column headed "Total mileage covered by agreement with operating company" should be given the sum of "Line owned" and "Line not owned."

Under "New line constructed during the year" is desired a statement of all line the construction of which enters into the construction account of the company making this report, and under "New line taken into operation during the year" is desired a statement of that portion of the line constructed on which operations have been begun during the year ending June 30, 1890.

## A.—MILEAGE OF ROAD LEASED.

Line in use.	Line owned.	Line not owned.	Total mileage covered by agreement with operating company.	New line constructed during the year.	New line taken into operation during the year.
Miles of single track.....					
Miles of second track.....					
Miles of third track.....					
Miles of fourth track.....					
Miles of yard track, sidings, and spurs....					
Total mileage operated (all tracks) .					

## B.—MILEAGE BY STATES AND TERRITORIES.

State or Territory.	Total mileage covered by agreement with operating company.	New line constructed during the year.	New line taken into operation.	Rails.	
				Iron.	Steel.
(a)	(a)	(a)	(a)	(a)	(a)
Total mileage operated (single track) .....					

a Several blank lines are printed in report.

Give name of carrier operating the line covered by this report.

## INCOME ACCOUNT.

Income from lease of road.  
Interest on bonds owned.  
Dividends on stocks owned.

Miscellaneous income, less expenses.

Income from other sources.

Total income.

Deficit.

Deductions from income:

Salaries and maintenance of organization.

Interest on funded debt accrued.

Interest on interest-bearing current liabilities accrued, not otherwise provided for.

Rentals.

Taxes.

Permanent improvements charged to income account.

Other deductions.

Total deductions from income.

Net income.

Deficit.

Dividends, ..... per cent common stock.

Dividends, ..... per cent preferred stock.

Other payments from net income.

Total.

Surplus for the year ending June 30, 1890.

Deficit for the year ending June 30, 1890.

#### GENERAL BALANCE SHEET.

[Inquiries under this heading in the special schedule relating to "Steam railroads (operating)" are common to this schedule and are not here reproduced.]

#### CONTRACTS AND AGREEMENTS.

Give a concise statement of the contract by which the road making this report is assigned for purpose of operation to the carrier or carriers mentioned above. In stating this contract, give date of contract, duration of contract, and the amount of compensation or method of computing compensation agreed upon, and such other facts as may be necessary for classifying the contract.

Remarks.

#### GENERAL INSTRUCTIONS.

This schedule is designed exclusively for "Subsidiary companies." Should it by error come into the hands of the officers of an "Operating company," it should be returned to the census office, and at the same time a request made for a schedule designed for operating roads. Should additional schedules be desired, notification of this fact will be promptly attended to.

#### SPECIAL SCHEDULE.—STEAM NAVIGATION.

Report for the Steamer .....; Operations for the year ending December 31, 1889.

#### OWNERSHIP AND ORGANIZATION.

[Give the following general information respecting the vessel for which this report is made.]

1. If owned by an individual, or in shares by individuals:

(a) Name of managing owner.

(b) Address of managing owner.

(c) Number of shareholders.

2. If owned by a joint stock company:

(a) Name of company.

(b) Date of organization.

(c) Under laws of what state organized.

(d) Number of shareholders.

(e) Location of principal offices.

3. If owned by a corporation:

(a) Name of corporation.

(b) Date of charter.

(c) Under the laws of what state chartered.

(d) Number of stockholders.

(e) Location of principal offices.

## 4. Questions to be answered by the individual, the firm, the company, or the corporation named:

- (a) Give a list of the vessels making up your fleet, stating which are owned and which are leased.

[NOTE.—This list need not be written out in full in the report of every vessel making up a fleet, but reference should be made to the report in which the complete list may be found.]

- (b) Name the vessels (steam, sail, and barge,) owned by you during any part of the year 1889, with the date of purchase, sale, loss, or dismantling, and give the name and address of the person of whom bought or to whom sold.

- (c) Give the location of any shore property used, such as docks, warehouses, or offices, and state whether such property is owned or leased.

- (d) State whether you own any lighters or floating elevators, and give a list of the same.

## DESCRIPTION AND EQUIPMENT.

1. What is the gross tonnage of this vessel?
2. How many tons (2,000 pounds) dead-weight cargo can she safely carry?
3. Of what material is her hull built?
4. To what class of vessels does she belong?
5. Number of masts.
6. How is she rigged?
7. Number of full decks; half decks.
8. How is she propelled?
9. When was she built?
10. If she has been rebuilt, give date of rebuilding.
11. When was she last docked and bottom recalked?
12. Number of engines.
13. Style of engines.
14. What is the maximum indicated horsepower of her engines?
15. What is the indicated horsepower at which her engines are usually worked?
16. Number of boilers.
17. Style of boilers.
18. What is the estimated commercial value of this vessel?

## SPECIAL INSTRUCTIONS.

Question 3. State whether the hull of the vessel is made of wood, of iron, of steel, or if it is composite.

Question 4. State whether the vessel is an ocean steamer, a river steamboat, a lake steam-berge, a tug, a steam-launch, or to what other class of vessels she belongs.

Question 8. State whether the vessel is a side-wheeler, a stern-wheeler, a propeller with single screw, or a propeller with twin screws.

Question 10. A vessel is "rebuilt" when repairs on her amount to one-half of the cost of a new vessel.

Question 12. Hoisting engines are to be excluded in answering this question.

Question 13. State whether engines are (a) simple, compound, or triple; (b) condensing or noncondensing; (c) beam, vertical, or horizontal; or (d) any other pertinent fact respecting them by which their style is determined.

Question 17. State whether boilers are cylindrical, locomotive, or water-tube, or any other pertinent fact respecting them by which their style is determined.

Remarks.

## ROUTES AND MILEAGE.

1. Terminals. [Given irrespective of direction sailed.]		2. Number of trips sailed between terminals named.	3. Number of points touched on trips between terminals named.	4. Sailing mileage between terminals named.	5. Total sailing mileage on trips between terminals named.
From—	To—				
(a)	(a)	(a)	(a)	(a)	(a)
Total for the season.....					

a A page of blank lines is printed in schedule.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 837

State here the actual number of geographical miles sailed during the season according to the log of the vessel.

## SPECIAL INSTRUCTIONS.

Column 1. State the terminals between which this vessel has sailed during the season 1889. If the vessel has sailed on a regular route, it is necessary to describe the route but once, and to state in column 2 the number of trips made over said route. If the vessel has sailed over several routes during the season, or has sailed from port to port wherever cargo offered, it will be necessary to describe each separate route, and to state in column 2 the number of trips made over each route so described. If a vessel has not sailed over the same route twice, a description of every trip sailed during the season will be necessary.

Column 3. State the number of places between the terminals named at which freight or passengers are received or landed. This should not include landings for wood or coal burned on a steamboat. In case of river traffic, in which landings are different for different trips over the same route, the figure returned in column 3 should give the number of places for which the boat has carried freight or passengers during the season.

Column 4. The mileage of a route called for in this column is to be determined by the number of miles a steam vessel would make in going from one terminal to another. This is termed the *sailing mileage* of the route, and for sailing vessels may be less than the number of miles actually sailed in going from one terminal to another. Deviations from a straight route that are necessary for touching at points between terminals should, of course, be admitted in estimating sailing mileage.

Column 5. The total number of miles sailed on trips between terminals named will equal the sailing mileage of each trip multiplied by the number of trips sailed. The total number of miles sailed during the season by the vessel for which this report is made will equal the sum of the figures returned in column 5.

Remarks.

## FREIGHT TRAFFIC ANALYZED AND ESTIMATED IN TONS.

1.	2.	3.	4.	5.	6.
Commodity.	Unit of measure used for commodity named.	Number of pounds in each unit of measure.	Number of tons of 2,000 pounds of commodity named.		
Products of agriculture:					
Wheat.....					
Corn.....					
Other grain.....					
Mill products.....					
Cotton.....					
Tobacco.....					
Products of mines:					
Anthracite coal.....					
Bituminous coal.....					
Coke.....					
Iron ore.....					
Other ore.....					
Stone.....					
[2 blank lines.]					
Other products:					
Ice.....					
Lumber.....					
Animal products.....					
[2 blank lines.]					
Manufactures:					
Petroleum and other oils.....					
Sugar.....					
Iron, pig and bloom.....					
Other iron manufactures.....					
Bar and sheet metal.....					
Cement, brick, and lime.....					
All other manufactures.....					
[1 blank line.]					
Merchandise and other commodities.					
[1 blank line.]					
Total tonnage for the season					
1889.....					

## SPECIAL INSTRUCTIONS.

Column 1. In case a large quantity of some commodity not named has been carried, write the same on the blank lines provided under the appropriate head.

Column 2. Since it is the custom of many vessels to carry freight by bulk or package, column 2 has been inserted, in which a statement should be made of the unit of measure used. For example, cotton may be carried by the bale or wheat by the bushel, in which case *bale* or *bushel* should be written in column 2.

Column 3. A statement should be here made of the number of pounds in the unit of measure on the basis of which tonnage is estimated. For miscellaneous package freight no answer can be returned in column 3; but it is desired that the estimated tonnage of such freight shall be returned in column 4.

Columns 5 and 6. These columns should be left blank, as they are intended for use in the census office.

The number of tons of freight carried during the season of 1889 will, of course, be the footing of the tons of specific commodities given in column 4.

Remarks.

## VOLUME OF FREIGHT TRAFFIC ESTIMATED IN TON-MILES.

Case I.				Case II.			
Months.	Actual number of tons carried each month.	Sailing mileage of route.	Ton-mileage per month.	Months.	Average number of tons carried each month.	Number of miles sailed each month.	Ton-mileage per month.
1889.				1889.			
January .....				January .....			
February .....				February .....			
March .....				March .....			
April .....				April .....			
May .....				May .....			
June .....				June .....			
July .....				July .....			
August .....				August .....			
September .....				September .....			
October .....				October .....			
November .....				November .....			
December .....				December .....			
Total .....				Total ....			

Case III.					Case IV.				
No. of trip.	Date of beginning trip.	Actual number of tons carried each trip.	Sailing mileage of trip.	Ton-mileage per trip.	No. of trip.	Date of beginning trip.	Average number of tons carried each trip.	Sailing mileage of trip.	Ton-mileage per trip.
(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Blank lines numbered 1 to 20 are printed in schedule.

## SPECIAL INSTRUCTIONS.

By ton-mileage is meant the number of tons of freight carried, multiplied by the distance which it is carried. So various are the conditions under which transportation by water is carried on that it is impossible to make any simple rule for estimating ton-mileage applicable to all classes of business. Provision has therefore been made for four distinct cases. Below will be found a statement of each of these cases, and a rule for estimating ton-mileage for each case.

## Case I.

Assume that the vessel sails over a regular route, the distance of which is known, and that no stops are made for taking on or putting off freight.

Rule.—Multiply the total tonnage carried during the season by the length of the regular route sailed. The result will be the ton-mileage for the season.

*Case II.*

Assume that the vessel sails over no regular route, and that stops are made at various ports for taking on and putting off freight.

*Rule.*—Estimate the average load carried by weeks or months; multiply this average by the number of miles sailed during the week or the month for which the average is taken. The result will be the estimated ton-mileage per week or month, and the sum of these results will be the estimated ton-mileage for the season.

*Case III.*

Assume that the vessel makes no stops between ports for taking on or putting off freight, but the trips sailed are not over any regular route, and consequently vary in length. This case covers vessels chartered from trip to trip.

*Rule.*—Multiply the tonnage carried on each trip by length of each trip. The result will be the ton-mileage by trips, and the sum of these results will be the ton-mileage for the season.

*Case IV.*

Assume that the vessel sails over a regular route, the distance of which is known, but that stops are made between the terminals for the purpose of taking on and putting off freight. This case covers much of the river traffic.

*Rule.*—Estimate the average number of tons carried each trip; multiply this average by the length of the trip. The result will be the ton-mileage by trips, and the sum of these results will be the ton-mileage for the season.

In the case of a tug or river steamboat with barges or lumber rafts, the freight carried is to be covered by the report of a vessel that furnished motive power. But a separate report is expected from each schooner on the lakes towed as the consort of a steamship.

Remarks.

## PASSENGER TRAFFIC.

Months.	Regular passengers.		Excursion passengers.		Ferry passengers.	
	1.	2.	3.	4.	5.	6.
	Number carried during month named.	Passenger mileage during month named.	Number carried during month named.	Passenger mileage during month named.	Number carried during month named.	Passenger mileage during month named.
1889.						
January.....						
February.....						
March.....						
April.....						
May.....						
June.....						
July.....						
August.....						
September.....						
October.....						
November.....						
December.....						
Total for the year..						

Of the number of ferry passengers carried as given above, state what number were carried on railroad tickets, or on tickets sold by common carriers other than the ferry company making report. The object of this is to separate the ferry business proper from the business done by a ferry as a link in long-distance transportation.

## SPECIAL INSTRUCTIONS.

Passenger mileage represents the volume of passenger traffic carried. It is equal to the total mileage covered by the tickets sold. To fill out columns 2, 4, and 6, under "Passenger Traffic," therefore, it will be necessary to sum up by months the mileage of tickets sold during the months named; the total will be the passenger mileage for the year. No averages should be admitted in calculating passenger mileage; nor is it admissible to calculate passenger mileage from passenger receipts unless the charge per mile is *invariably* in proportion to distance.

Remarks.

## INCOME AND EXPENDITURE.

Gross earnings from freight carried.

Gross earnings from passengers carried.

Earnings from other sources.

Total earnings.

Less running expenses as follows:

Port charges.

Wages of officers and crew.

Provisions.

Current repairs.

Fuel.

Other running expenses.

Total running expenses.

Net earnings of vessel.

From which deduct shore expenses, as follows:

Commissions.

Insurance.

Taxes.

Office expenses.

Other shore expenses.

Total shore expenses.

Final net earnings.

If any money has been expended in repairs, not included in "Current repairs," as given above, state the amount.

State whether cost of loading and unloading is paid by the vessel or by the consignee of freight.

State in tons of 2,000 pounds the amount of coal consumed during the year.

## NOTE TO VESSEL OWNERS.

It is hoped vessel owners clearly understand that the facts called for will not be used in such a way as to work injury to their business. It is not intended to publish them in detail, but to mass them for the purpose of finding out what the cost of moving freight by water is, and what the leading items of that cost are. The census office guarantees that all due care will be taken to guard the business secrets of those making this report.

## SPECIAL INSTRUCTIONS.

Should any item of expense be chargeable to several vessels jointly, as may be the case in rental of docks or office expenses, such portion only should be charged to the accounts of the vessel covered by this report as the gross earnings of this vessel bear to the joint gross earnings of all the vessels.

No attempt is made to separate expenditure arising from passenger service from expenditure arising from freight service. But if any vessel manager has made such a separation for his own use, a statement of the results arrived at, as also of the method adopted, will greatly assist the census office in interpreting shipping returns.

Harbor tugs, or any vessels that receive direct payment for towing, may state their income against "Earnings from other sources," and by using such items of expense as fit their case.

A lake steamship also, that, besides freight earnings, derives an income from towing, may assign such income to "Earnings from other sources."

Remarks.

## CLASSIFICATION OF EMPLOYEES ON STEAMERS.

1.	2.	3.	4.	5.	6.	7.
Employees.	Number making up ordinary crew of vessel.	Average rate of wages per month.	Total wages paid during the year.	Number of days for which employment is given.	Total number of persons taken into employment during season.	Nationality of employees.
Captains.....						
First mates .....						
Second mates .....						
Clerks .....						
First engineers .....						
Second engineers..						
Wheelmen .....						
Lookouts .....						
Watchmen .....						
Cooks .....						
Cooks' assistants...						
Seamen .....						
Deck hands .....						
Oilers.....						
[2 blank lines.]						
Stewards .....						
Waiters.....						
Cabin boys .....						
Chambermaids .....						
[1 blank line.]						
Total .....						

## SPECIAL INSTRUCTIONS.

Column 1. In case the list of employees does not provide for all the crew of the vessel, the blank spaces in column 1 may be used for completing the list.

Column 2. State here the number of employees making up the ordinary crew. For example, suppose one cook is employed on a vessel, but three separate persons have served as cook during the season, the return should be made for only one cook.

Column 5. The information which it is desired to gain by means of this column is the average length of employment during the year provided by vessels for the several grades of employees named. The figure inserted should be the number of days for which employment is given for one man in a class, and not the total number of days' employment paid for.

Column 6. The total number of persons employed during the year should be stated here; that is, a man who goes one trip should count the same as a man who works the entire season.

Column 7. Give the nationality of employees, accounting for the number returned in column 6 rather than in column 2. If more space is required than the schedule provides, insert a page containing the proper information.

Remarks.

## GENERAL INSTRUCTIONS.

It has been designed to make this schedule as simple as the complex conditions under which transportation by water is carried on will admit. Special instructions are printed explaining the nature of the questions and how they are to be answered. It is hoped managing owners will conform to these instructions and adjust their accounts to the requirements of this schedule, rather than modify the schedule to suit their accounts. This is absolutely essential, in order that uniformity may be preserved in the returns made to the census office.

It is designed that this schedule shall serve for all classes of steam vessels, whether they do a combined passenger and freight business, a freight business, or a towing business.

## SPECIAL SCHEDULE.—SAILING VESSELS.

Report of .....; Operations for the year ending December 31, 1889.

## OWNERSHIP AND ORGANIZATION.

[Inquiries numbered 1 to 4, inclusive, under this heading, in special schedule "Steam navigation," are common to this special schedule and are not here reproduced.]

# 842 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## DESCRIPTION AND EQUIPMENT.

[Inquiries numbered 1 to 3, 5 to 7, 9 to 11, inclusive, and 18, under this heading, in the schedule relating to "Steam navigation," are common to this special schedule and are not here reproduced.]

## ROUTES AND MILEAGE.

[Inquiries numbered 1 to 5, inclusive, under this heading, in special schedule relating to "Steam navigation," are common to this special schedule and are not here reproduced.]

## FREIGHT TRAFFIC ANALYZED AND ESTIMATED IN TONS.

[Inquiries numbered 1 to 6, inclusive, under this heading, in special schedule relating to "Steam navigation," are common to this special schedule and are not here reproduced.]

## VOLUME OF FREIGHT TRAFFIC, ESTIMATED IN TON-MILES.

[Inquiries under Case III, under this heading, in special schedule relating to "Steam navigation," are common to this special schedule and are not here reproduced.]

## INCOME AND EXPENDITURE.

Gross earnings from freight carried.

Earnings from other sources.

Total earnings.

Less running expenses, as follows:

Port charges.

Paid for wages of crew.

Paid for provisions.

"Vessel's bills" or current repairs.

Other running expenses.

Total running expenses.

Total earnings of vessel.

From which deduct shore expenses, as follows:

Commissions.

Insurance.

Taxes.

Other shore expenses.

Total shore expenses.

Final net earnings.

Has any money been expended during the year 1889 for extraordinary repairs not included under "vessel's bills," as given above?

If so, state the amount.

State the amount of earnings from passenger traffic, if any.

## SPECIAL INSTRUCTIONS.

If any sailing vessel has earned money by carrying passengers, such earnings should be assigned to "Earnings from other sources." In this case the amount of passenger earnings should be given under "State the amount of earnings from passenger traffic, etc."

Remarks.

## SCHEDULE OF EMPLOYEES FOR SAILING VESSELS.

1.	2.	3.	4.	5.	6.	7.
Employees.	Number making up ordinary crew of vessel.	Average rate of wages per month.	Total wages paid during the year.	Number of days for which employment is given.	Total number of persons taken into employment during season.	Nationality of employees.
Captains.....						
First mates.....						
Second mates.....						
Wheelmen.....						
Lookouts.....						
Watchmen.....						
Cooks.....						
Cooks' assistants..						
Seamen.....						

Remarks.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 843

## SPECIAL SCHEDULE.—EXPRESS COMPANIES.

Report of ..... for the year ending June 30, 1890.

### OWNERSHIP AND ORGANIZATION.

If a joint stock company:

- (a) Name of company.
- (b) Date of organization.
- (c) Under laws of what state organized.
- (d) Number of shareholders.
- (e) Location of principal offices.

If a corporation:

- (a) Name of corporation.
- (b) Date of charter.
- (c) Under the laws of what state chartered.
- (d) Number of stockholders.
- (e) Location of principal offices.

### ROUTES AND MILEAGE.

Give below the names of railroads, of steamship lines, or stage lines over which the company making this report operates, and designate the location of the same by stating terminals. In stating route, give first all railways, then all steamship lines, then all stage routes.

Name of lines.	Terminals.		Miles.
	From—	To—	
(a)	(a)	(a)	(a)

a A page of blank lines is printed in schedule.

### INCOME ACCOUNT.

Gross earnings from operations.  
Less operating expenses (specified as follows):  
    Amount paid to railroads.  
    Amount paid to water lines.  
    Amount paid to stage lines.  
    Amount paid for salaries and wages.  
    Amount paid for repairs.  
    Amount paid for general expenses.  
    Amount paid for other expenses of operation.  
    Total operating expenses.  
    Net earnings from operation.  
Income from other sources.  
    Total income.  
Deductions from income:  
    Interest payments during the year.  
    Taxes.  
    Other deductions.  
    Total deductions from income.  
    Final net earnings.  
Dividends, ..... per cent.  
    Surplus or deficit.

### BALANCE SHEET.

Assets:  
    Franchises.  
    Equipment and fixtures.  
    Cash and cash assets.  
    Bills and accounts receivable.  
    Profit and loss.  
    Total.

## Liabilities:

Capital stock or shares.  
 Funded debt.  
 Other debt.  
 Profit and loss.  
 Total.

## NUMBER OF PERSONS EMPLOYED.

Class of employees.	In the United States.	Not in the United States.	Total.
General officers.....			
Superintendents and route agents.....			
General office clerks.....			
Agents.....			
Assistants to agents.....			
Messengers.....			
Baggagemen employed as messengers.....			
Drivers of wagons.....			
[1 blank line.]			
All others.....			
Total.....			

State the number of waybills issued by this company during the year.

## SPECIAL SCHEDULE.—EXPRESS COMPANIES.

(Division report.)

Report of ..... (Division .....) for the year ending June 30, 1890.

[Inquiries under the headings of "Ownership and organization" and "Routes and mileage" in special schedule of "Express companies" are common to this special schedule (division report) and are not here reproduced.]

## EQUIPMENT AND FIXTURES (DIVISION .....).

Items.	Number.	Items.	Value.
Cars.....		Cars.....	
Office safes.....		Office safes.....	
Messengers' safes.....		Messengers' safes.....	
Messengers' trunks.....		Messengers' trunks.....	
Horses.....		Horses.....	
Wagons.....		Wagons.....	
Sleighs.....		Sleighs.....	
		Office fixtures.....	
		Stable equipment (including harnesses).....	
		Total value.....	

## NUMBER OF PERSONS EMPLOYED (DIVISION .....).

[Inquiries under the heading of "Number of persons employed" in special schedule of "Express companies" are common to this special schedule (division report) and are not here reproduced.]

## EXPENDITURES FOR THE YEAR (DIVISION .....).

NOTE.—The classification of items of expenditure should be made accurately, and should conform to the books of the company, so far as these items may be territorially assigned; for such items as can not be thus assigned, the classification is to be made on the basis of "Business done."

## Operating expenses:

Paid to railroads.  
 Paid to water lines.  
 Paid to stage lines.  
 Paid for salaries and wages.  
 Paid for local expenses, repairs, etc.  
 Paid for general expenses.  
 Paid for other expenses of operation.  
 Total operating expenses.

## Fixed charges:

Interest payments during the year.

Taxes.

Other charges.

Total fixed charges.

Dividends, ..... per cent.

Total expenditures for the year.

## STATEMENT OF BUSINESS DONE (DIVISION .....).

NOTE.—The figures entered below are to be arrived at as follows:

First. Determine accurately the total number of freight waybills, money waybills, and money orders issued by this company during the year ending June 30, 1890.

Second. By means of an accurate classification of the waybills issued during two periods of fifteen days each, showing the number of freight waybills issued, the number of packages carried on freight waybills with the weight of the same, the number of money waybills issued and the number of packages carried on the same, and the number of money orders issued, determine what portion of the corresponding totals for the year should be assigned to the territorial division covered by this report.

Number of freight waybills issued.

Number of packages carried on freight waybills.

Weight of packages carried on freight waybills.

Number of money waybills issued.

Number of packages carried on money waybills.

Number of money orders issued.

## SPECIAL SCHEDULE.—RAPID TRANSIT FACILITIES IN CITIES: CABLE RAILWAYS.

Report of ..... for the year ending June 30, 1890.

## A.—NAME OF COMPANY, ETC.

1. Give corporate name of company making this return.
2. Give date of corporate charter.
3. Give date of commencing to operate by cable.
4. Give number of stockholders.

## B.—DESCRIPTION OF ROAD AND EQUIPMENT.

1. Was this road originally operated by cable, or has cable been substituted for some other motive power?
2. Is any other motive power now used; and if so, what?
3. Give the total length of street over which cable cars are run.
4. Give the total length of all tracks, including sidings, etc., upon which cable cars are run.
5. Give weights per yard of rail used and number of miles of track laid with each.
6. What is the maximum grade?
7. How long is it?
8. How many curves are there on the line?
9. What is the minimum radius of curves?
10. Give gauge of track.
11. Give number of power stations.
12. Give number of engines used to generate power.
13. State whether the engines are single or compound, condensing or noncondensing, and give the cylinder dimensions of each.
14. Give total indicated horsepower of engines.
15. Give average indicated horsepower actually used.
16. Give number of cables.
17. Give diameter and length of each cable.
18. Give running speed of each cable.
19. Give total number of grip cars.
20. Give total number of trail cars.
21. Give average number of cars operated at once.
22. Enumerate other items of equipment.

Remarks.

## 846 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## C.—OFFICERS AND EMPLOYEES.

Class.	Number.	Total wages or salary paid during the year.
Officers and office employees .....		
Gripmen .....		
Conductors .....		
Engineers and firemen .....		
Mechanics .....		
Others employed in power stations .....		
Switchmen, trackmen, and others employed on the line .....		
[3 blank lines.]		
Total .....		

Remarks.

## D.—PASSENGERS CARRIED, CAR MILEAGE, ETC.

1. Give the number of passengers carried during the year.
2. Describe other traffic, if any, and state the amount of it.
3. What is the average sum received per passenger carried?
4. Give the number of miles run by passenger cars drawn by cable.
5. Give average speed of cars, including stops:
  - (a) In crowded portions of the city.
  - (b) In suburban districts.
6. Give the greatest speed:
  - (a) In crowded portions of the city.
  - (b) In suburban districts.

Remarks.

## E.—CAPITAL STOCK AND FUNDED DEBT.

## CAPITAL STOCK.

Kind of stock.	Total issued and outstanding.	Dividends for the year.		
		Rate.	Amount—	
			Declared.	Paid.
(a)	(a)	(a)	(a)	(a)
Total .....				

## FUNDED DEBT.

Kind of obligation.	Total issued and outstanding.	Interest for the year.		
		Rate.	Amount—	
			Accrued.	Paid.
(a)	(a)	(a)	(a)	(a)
Total .....				

a Several blank lines are printed in schedule.

Remarks.

## F.—COST OF ROAD AND EQUIPMENT.

Items of cost.	Cost during the year.	Total cost to date.
Construction and real estate:		
Cost of roadbed and track .....		
Street construction for cable (conduits, pits, etc.) .....		
Right of way .....		
Power plant and buildings .....		
Real estate .....		
[3 blank lines.]		
Total cost of construction and real estate .....		
Equipment:		
Passenger cars .....		
Other rolling stock .....		
Cables .....		
Grips .....		
[2 blank lines.]		
Total cost of equipment .....		
Grand total cost of road and equipment .....		

Give the total cost of street construction per mile of single track.

## G.—EARNINGS AND EXPENDITURES PERTAINING TO OPERATION

## EARNINGS FROM OPERATION.

Source of earnings.	Amount earned during the year.
From passengers .....	
From advertising .....	
From other sources .....	
Total .....	

## EXPENSES OF OPERATION.

For what expended.	Amount expended during the year.
Maintenance of track and buildings:	
Repairs of roadbed and track .....	
Repairs of buildings .....	
[1 blank line.]	
Maintenance of power plant:	
Repairs and renewals on engines .....	
Repairs and renewals on other machinery .....	
Current expenses for power:	
Fuel .....	
Wages of engineers and firemen .....	
Wages of mechanics and others employed in power houses .....	
Miscellaneous supplies for power houses .....	
[1 blank line.]	
Maintenance of street system:	
Repairs and renewals of cable .....	
Repairs and renewals of pulleys .....	
[2 blank lines.]	
Maintenance of rolling stock:	
Repairs of cars .....	
Repairs and renewals of grips .....	
[1 blank line.]	
Current expenses for transportation:	
Wages of gripmen and conductors .....	
Wages of trackmen and others employed on the line .....	
Removal of snow and ice .....	
Damages to persons and property .....	
[2 blank lines.]	
General expenses:	
Salaries of general officers and clerks .....	
Miscellaneous expenses of general office .....	
Advertising and printing .....	
Legal expenses .....	
Insurance .....	
[2 blank lines.]	
Total .....	

## INSTRUCTIONS.

Additional items of operating expense may be entered in the blank spaces left for the purpose.

*Depreciation.*—If any entry is made under this head, the manner of estimating the depreciation should be clearly stated.

Taxes should not be included among operating expenses. They are provided for under "I."

## H.—TAXES, LICENSES, AND OTHER MUNICIPAL CHARGES.

*Explanation.*—For statement of the purpose of this table see general explanation.

In the questions following it is intended to call only for such information as may be given, without reference to books, by anyone familiar with street railway interests in the city where the road is located.

For what paid.	Amount paid during the year.
General taxes paid .....	
Specific taxes (on earnings, dividends, etc.) paid .....	
Paid for car licenses .....	
Paid for other licenses .....	
Paid for tolls over bridges and viaducts .....	
Paid for constructing and maintaining pavements not used by street railroad company .....	
[2 blank lines.]	
Total .....	

1. State briefly the manner of assessing street railway property for purposes of general taxation.
2. Describe any specific taxation, stating on what based, rate, etc.
3. Give the substance of any laws or general ordinances relating to car and other licenses, tolls, maintenance of bridges and pavements, etc.
4. Is the municipal franchise limited in time; and if so, for how long a time is it granted?

## I.—NET INCOME, DIVIDENDS, ETC.

Operating earnings (see "G").

Operating expenses (see "G").

Net earnings (by subtracting).

Rentals received and miscellaneous income (not from operation).

Total income (by adding rentals, etc., to net earnings).

Fixed charges:

Rentals paid.

Taxes paid.

Interest paid.

Total fixed charges.

Net income or deficit (by subtracting fixed charges from total income).

Payments from net income:

Dividends, ..... per cent.

Other payments.

Total.

Surplus or deficit for the year (by subtracting).

Remarks.

## J.—BALANCE SHEET.

Assets:

Cost of construction and real estate.

Cost of equipment.

Other permanent investments.

Cash on hand.

Bills receivable.

Supplies.

Sundries.

[4 blank lines.]

Profit and loss.

Liabilities:

Capital stock.

Funded debt.

Bills payable.

Interest due.

Dividends due.

Sundries.

[6 blank lines.]

Profit and loss.

Remarks.

## GENERAL EXPLANATION OF SCHEDULE.

*Correspondence regarding schedules—The census year.*—It is of the greatest importance that the information to be contained in this schedule shall relate to the census year closing June 30, 1890, and that the schedule shall be promptly returned. Roads which have not been operated for the complete year previous to June 30, 1890, should make returns for such time as they have been in regular operation, stating clearly when that time commenced.

*Separate schedules for roads using different kinds of motive power—Mixed roads.*—Four distinct schedules have been prepared, one each for roads operated by animal, cable, electric, and steam power. In case of roads using more than one kind of motive power, as many schedules should be filled out as there are kinds of motive power. But the questions in tables E, H, I, and J need be answered but once for the whole road.

## SPECIAL SCHEDULE.—RAPID TRANSIT FACILITIES IN CITIES: ELECTRIC RAILWAYS.

Report of ..... for the year ending June 30, 1890.

## A.—NAME OF COMPANY, ETC.

1. Give corporate name of the company making this return.
2. Give date of corporate charter.
3. Give date of commencing to operate by electricity.
4. Give number of stockholders.

## B.—DESCRIPTION OF ROAD AND EQUIPMENT.

*Explanation.*—For questions relating to details of electrical equipment see "K."

1. Was this road originally operated by electricity, or has electricity been substituted for some other motive power?
2. Is any other motive power now used; and if so, what?
3. Give the total length of street over which electric cars are run.
4. Give the total length of all tracks, including sidings, etc., upon which electric cars are run.
5. Describe briefly the electric system in use, stating whether overhead, underground, or storage, single or double trolley, etc.

[Inquiries numbered 5 to 7 and 9 to 15, inclusive, in special schedule relating to "Cable Railways" are common to this special schedule and are not here reproduced.]

16. Give number of dynamos.
  17. Give total number of motor cars.
  18. Give total number of tow cars.
  19. Give average number of cars operated at once.
  20. Enumerate other items of equipment.
- Remarks.

## C.—OFFICERS AND EMPLOYEES.

Class.	Number.	Total wages or salary paid during the year.
Officers and office employees .....		
Motormen .....		
Conductors .....		
Engineers and firemen .....		
Mechanics and electricians .....		
Others employed in power stations .....		
Switchmen, trackmen, and others employed on the line .....		
Total..... [3 blank lines.]		

Remarks.

## 850 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## D.—PASSENGERS CARRIED, CAR MILEAGE, ETC.

1. Give the number of passengers carried during the year.
2. Describe other traffic, if any, and state the amount of it.
3. What is the average sum received per passenger carried?
4. Give the number of miles run by electric-motor cars.
5. Give the number of miles run by tow cars.
6. Give the average speed of cars, including stops:
  - (a) In crowded portions of the city.
  - (b) In suburban districts.
7. Give the greatest speed:
  - (a) In crowded portions of the city.
  - (b) In suburban districts.

Remarks.

## E.—CAPITAL STOCK AND FUNDED DEBT.

[Inquiries under this heading in special schedule relating to "Cable Railways" are common to this special schedule and are not here reproduced.]

## F.—COST OF ROAD AND EQUIPMENT.

Items of cost.	Cost during the year.	Total cost to date.
Construction and real estate:		
Cost of roadbed and track .....		
Electrical street construction (posts, wire, etc.) .....		
Right of way .....		
Power plant and buildings .....		
Real estate .....		
[3 blank lines.]		
Total cost of construction and real estate .....		
Equipment:		
Passenger cars .....		
Other rolling stock .....		
Motors, trolleys, and fittings .....		
[3 blank lines.]		
Total cost of equipment .....		
Grand total cost of road and equipment .....		

Give the total cost of street construction per mile of single track.

## G.—EARNINGS AND EXPENDITURES PERTAINING TO OPERATION.

## EARNINGS FROM OPERATION.

Source of earnings.	Amount earned during the year.
From passengers .....	
From advertising .....	
From other sources .....	
Total .....	

## EXPENSES OF OPERATION.

For what expended.	Amount expended during the year.
Maintenance of track and buildings:	
Repairs of roadbed and track .....	
Repairs of buildings .....	
[1 blank line.]	
Maintenance of power plant:	
Repairs and renewals on engines .....	
Repairs and renewals on dynamos .....	
Repairs and renewals on other machinery .....	
[1 blank line.]	
Current expenses for power:	
Fuel .....	
Wages of engineers and firemen .....	
Wages of dynamo engineers and mechanics .....	
Miscellaneous supplies for power houses .....	

## EXPENSES OF OPERATION—Continued.

For what expended.	Amount expended during the year.
Maintenance of street system:	
Repairs and renewals on electric street system . . . . .	
[2 blank lines.]	
Maintenance of rolling stock:	
Repairs of cars . . . . .	
Repairs and renewals on motors (except gearing) . . . . .	
Repairs and renewals of gearing and trolleys . . . . .	
[2 blank lines.]	
Current expenses for transportation:	
Wages of motormen and conductors . . . . .	
Wages of trackmen and others employed on the line . . . . .	
Removal of snow and ice . . . . .	
Damages to persons and property . . . . .	
[2 blank lines.]	
General expenses:	
Salaries of general officers and clerks . . . . .	
Miscellaneous expenses of general office . . . . .	
Advertising and printing . . . . .	
Legal expenses . . . . .	
Insurance . . . . .	
[2 blank lines.]	
Total . . . . .	

## H.—TAXES, LICENSES, AND OTHER MUNICIPAL CHARGES.

[Inquiries under this heading in special schedule relating to "Cable Railways" are common to this special schedule and are not here reproduced.]

## I.—NET INCOME, DIVIDENDS, ETC.

[Inquiries under this heading in special schedule relating to "Cable Railways" are common to this special schedule and are not here reproduced.]

## J.—BALANCE SHEET.

[Inquiries under this heading in special schedule relating to "Cable Railways" are common to this special schedule and are not here reproduced.]

## K.—DETAILS OF ELECTRICAL EQUIPMENT.

## ELECTRICAL STATION APPARATUS.—DYNAMOS IN USE.

## 1. Type of dynamo designated by character of current generated:

Character of current.	Number of dynamos.
Continuous current, constant voltage, variable amperage . . . . .	
Continuous current, variable voltage, constant amperage . . . . .	
Alternating current, constant voltage, variable amperage . . . . .	
Alternating current, variable voltage, constant amperage . . . . .	
[5 blank lines.]	

NOTE.—If currents of other description are in use, give corresponding information.

## 2. Type of dynamos designated by character of winding and commutator segments:

Number of dynamos of each type.	Manner of connecting coils electrically.	How excited.	Number of commutator segments.
(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

NOTE.—If dynamos are in use that can not be properly classed under the above descriptive headings, give corresponding information.

## 852 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

### 3. Capacity of dynamos in use (describe winding, as series, shunt, compound, or special):

How wound.	Number of dynamos.	Capacity of each in volts.	Capacity of each in amperes.	Capacity of each in watts.
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

### 4. Capacity of motors in use (describe winding, as series, shunt, compound, or special):

How wound.	Number of motors.	Capacity of each in volts.	Capacity of each in amperes.	Capacity of each in watts.
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

### 5. Currents generated by dynamos operated in series or multiple:

Number of dynamos connected.  
Winding of dynamos connected.  
How connected electrically.  
Character of current generated (see No. 1).  
Capacity of current generated: Volts; amperes; watts.  
Are dynamos so connected and operated regularly, or in case of emergency only?  
Give greatest capacity of current ever generated for practical use: Volts; amperes; watts.

### SCIENTIFIC ELECTRICAL INSTRUMENTS USED IN STATION.

### 6. Give a list showing number and character of all instruments and apparatus in use in the station, except dynamos.

### 7. Type of motors and current required (as shunt, series, compound, multiple-series, series-multiple, multiple, or specially wound):

Type of motor.	Number of each type.	Horsepower of each type.	Highest voltage required.	Highest amperage required.	Lowest voltage required.	Lowest amperage required.
(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

### 8. Character of line:

Single aerial trolley, length of line.  
Double aerial trolley, length of line.  
Conduit, length of line.  
Third-rail conductor, length of line.  
Series system, length of line.  
Three-wire system, length of line.  
Accumulator system, length of line.

Character of conductor (as feeder lines, main lines, ground return, or rail return).	Number of conductor.	Total length of conductor.	Gauge in mfs.	Current carried at station.	Current carried at farthest terminal.
(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

9. Car equipment and movement:  
 Number of cars carrying one motor; horsepower of motor.  
 Number of cars carrying two motors; horsepower of motors.  
 Number of electric snowplows; horsepower required for each.  
 Give full description of manner of installing motors in cars, snowplows,  
 electrical connections, and all devices for electrical and mechanical control.
10. Electric output of station:

	Volts.	Amperes.	Watts.	Hours of day.
Maximum load .....				
Minimum load .....				
Average load .....				
Load per car:				
Maximum .....				
Minimum .....				
Average .....				

11. System of lighting cars.  
 (Describe in full detail, giving the number of lamps per car, voltage and amperage required per lamp, and system of wiring lamps.)
12. System of lighting power stations and car stables.  
 (Describe in full detail, giving number of lamps, voltage and amperage required per lamp, and system of wiring lamps.)
13. Electric lighting other than for cars, power stations, and car stables.  
 (If lighting is done for the street traversed by the cars as a part consideration for franchise or other privileges, or if lighting is done for commercial or residence purposes, or in any way other than for the use of the company, please give full description of the same and state the amount of annual income derived from such sources.)
14. Primary current system of wiring motors (as series, series-multiple, multiple-series, multiple, three-wire system, double-pressure three-wire system, or other systems):

System of wiring.	Voltage required by motor.	Amperage required by motor.	Total number of motors wired.	Total H. P. of motors wired.
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

15. Secondary current system of wiring motors (as series, series-multiple, multiple-series, multiple, three-wire system, double-pressure three-wire system, or other systems):

System of wiring.	Voltage required by motor.	Amperage required by motor.	Total number of motors wired.	Total H. P. of motors wired.
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

16. Line construction:  
 Character of insulation.  
 Give length of time that each insulation has been used.  
 Average number of poles per mile.  
 Character of material used.  
 Character of soil.  
 Average life of poles.  
 Total length of conductors on poles.  
 Describe system of guy wires, supports, insulators, and guards for keeping current conductors in place and tension.  
 Describe devices for protecting persons or property from injury in case of a break in a current conductor or of a wire falling across the conductor.  
 State the total cost of all aerial conductors.

## 854 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## 16. Line construction—Continued.

State the annual cost of maintenance for all aerial conductors.

State number of stoppages that have been occasioned by faults occurring on aerial conductors, and describe cause.

State number of breakages that have occurred on lines, and the cause of the same.

State number of times wires have been cut by local authorities to remove obstructions to firemen's work or for other causes, giving reasons in full.

## 17. Aerial and rail return current conductors (describe currents, as continuous current, constant voltage, variable amperage; continuous current, variable voltage, constant amperage; alternating current, constant voltage, variable amperage; or alternating current, variable voltage, constant amperage):

Character of current.	Number of conductors leading out of station.	Size of conductors in circular mils.	Current carried.	
			Highest voltage.	Highest amperage.
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

NOTE.—If currents of other description are in use, part underground and part aerial, give corresponding information.

## 18. Part aerial and part ground return current conductors (describe currents as continuous current, constant voltage, variable amperage; continuous current, variable voltage, constant amperage; alternating current, constant voltage, variable amperage; or alternating current, variable voltage, constant amperage):

Character of current.	Number of conductors leading out of station.	Size of conductors in circular mils.	Current carried.	
			Highest voltage.	Highest amperage.
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

NOTE.—If currents of other description are in use, part underground and part aerial, give corresponding information.

## LINE CONSTRUCTION.

## 19. Aerial current conductors (describe currents as continuous current, constant voltage, variable amperage; continuous current, variable voltage, constant amperage; alternating current, constant voltage, variable amperage; or alternating current, variable voltage, constant amperage):

Character of current.	Number of conductors leading out of station.	Size of conductors in circular mils.	Current carried.	
			Highest voltage.	Highest amperage.
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

NOTE.—If currents of other description are in use underground, give corresponding information.

20. Underground current conductors (describe currents as continuous current, constant voltage, variable amperage; continuous current, variable voltage, constant amperage; alternating current, constant voltage, variable amperage; or alternating current, variable voltage, constant amperage):

Character of current.	Number of conductors leading out of station.	Size of conductors in circular mils.	Current carried.	
			Highest voltage.	Highest amperage.
(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

NOTE.—If currents of other description are in use underground, give corresponding information.

#### SPECIAL SCHEDULE.—RAPID TRANSIT FACILITIES IN CITIES.

Report of ....., on railway mileage from 1880 to 1889, inclusive.

##### A.—DESCRIPTION OF LINE OPERATED DECEMBER 31, 1889.

(For operating companies only.)

##### 1. Operated line owned.

(In case of joint ownership, give only the share assignable to the company reporting.)

Description.	Number of miles.
(a)	(a)
Total .....	

a Several blank lines are printed in schedule.

##### 2. Operated line leased.

(The names of lessors should be given under "C.")

Description.	Number of miles.
(a)	(a)
Total .....	

a Several blank lines are printed in schedule.

##### 3. Line used under trackage rights.

(In this space, and here only, should be given all mileage which, though in use by the company making this return, will be returned as owned or leased by some other operating company.)

Description.	Number of miles.
(a)	(a)
Total .....	

a Several blank lines are printed in schedule.

#### INSTRUCTIONS.

Give the place where each line begins, where it ends, what streets are traversed by it, and its length.

All lines operated should be carefully classified under three heads: (1) Operated line owned; (2) operated line leased; (3) line used under trackage rights.

All fractions should be given as decimals.

## 4. Summary of mileage, December 31, 1889.

Tracks in use.	Operated line owned.	Operated line leased.	Total, excluding trackage rights.	Line used under track-age rights.	Total mileage.
Main line and branches .....					
Second track .....					
Sidings .....					
Total .....					

## B.—MILES OF LINE BUILT AND IN OPERATION FROM 1880 TO 1889.

(For operating companies only.)

Years.	Number of miles.	Years.	Number of miles.
1880 .....		1885 .....	
1881 .....		1886 .....	
1882 .....		1887 .....	
1883 .....		1888 .....	
1884 .....		1889 .....	

## Explanation of B.

## INSTRUCTIONS.

The purpose of this table is to show how much of the line *now operated* (whether under ownership or lease) by the company making this return was built and in operation during each of the last ten years. It is believed that in nearly all cases where the line now operated was under other control in previous years the mileage for those years can be readily ascertained and reported. If in any case this is impossible, a note should be made of the fact in the space below the table, and the addresses given of persons who can supply the necessary information.

The mileage given should be actual length of line, a mile of double track counting for no more than a mile of single track.

All lines now leased should be included here, whether formerly independent or not.

In order that the same line may not be reported in duplicate by different companies, it is essential that *no tracks over which the company making return has only trackage rights shall be included in this table.*

## C.—NAMES OF OWNERS OF OPERATED LINES LEASED, MOTIVE POWER, ETC.

Names of lessor companies or persons.	Addresses.
(a)	(a)

*a* Several blank lines are printed in schedule.

What is the motive power in use on this line (horse, cable, electricity, or *steam*)?

What change, if any, in motive power is contemplated?

What is the date of the close of the fiscal year?

Name and address of the person to whom correspondence regarding this return should be addressed.

Explanation of C.

## SPECIAL SCHEDULE.—RAPID TRANSIT FACILITIES IN CITIES: RAILWAYS OPERATED BY ANIMAL POWER.

Report of ....., for the year ending June 30, 1890.

## A.—NAME OF COMPANY, ETC.

Give corporate name of company making this return.

Give date of corporate charter.

. Give number of stockholders.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 857

## B.—DESCRIPTION OF ROAD AND EQUIPMENT.

1. Is any motive power other than animal used; and if so, what?
2. Give the total street length upon which cars are operated by animal power.
3. Give the total length of all tracks, including sidings, upon which cars are operated by animal power.
4. Give weights per yard of rail used and number of miles of track laid with each.
5. Give gauge of track.
6. Give number of horses and mules.
7. Give number of passenger cars.
8. Give average number operated at once.
9. Enumerate other items of equipment.

## C.—OFFICERS AND EMPLOYEES.

Class.	Number.	Total wages or salary paid during the year.
Officers and office employees .....		
Drivers .....		
Conductors .....		
Hostlers and blacksmiths .....		
Others employed in barns and shops .....		
Switchmen, trackmen, and others employed on the line .....		
[3 blank lines.]		
Total .....		

Remarks.

## D.—PASSENGERS CARRIED, CAR MILEAGE, ETC.

1. Give the number of passengers carried during the year.
2. Describe other traffic, if any, and state the amount of it.
3. What is the average sum received per passenger carried?
4. Give the number of miles run by passenger cars drawn by animals.
5. Give the average speed of cars, including stops:
  - (a) In crowded portions of the city.
  - (b) In suburban districts.
6. Give the greatest speed:
  - (a) In crowded portions of the city.
  - (b) In suburban districts.

Remarks.

## E.—CAPITAL STOCK AND FUNDED DEBT.

[Inquiries under this heading in special schedule relating to "Cable Railways" are common to this special schedule and are not here reproduced.]

## F.—COST OF ROAD AND EQUIPMENT.

Items of cost.	Cost during the year.	Total cost to date.
Construction and real estate:		
Cost of roadbed and track .....		
Right of way .....		
Buildings and fixtures .....		
Real estate .....		
[3 blank lines.]		
Total cost of construction and real estate .....		
Equipment:		
Passenger cars .....		
Other rolling stock .....		
Horses and mules .....		
Harness .....		
[2 blank lines.]		
Total cost of equipment .....		
Grand total cost of road and equipment .....		

# 858 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Give the total cost of street construction per mile of single track:

## G.—EARNINGS AND EXPENDITURES PERTAINING TO OPERATION.

### EARNINGS FROM OPERATION.

Source of earnings.	Amount earned during the year.
From passengers .....	
From advertising .....	
From other sources .....	
Total .....	

### EXPENSES OF OPERATION.

For what expended.	Amount expended during the year.
Maintenance of track and buildings:	
Repairs of roadbed and track .....	
Repairs of buildings .....	
[1 blank line.]	
Renewals of animals and harness:	
Renewals of horses and mules .....	
Renewals of harness .....	
[1 blank line.]	
Current expenses of animal power:	
Provender .....	
Wages of hostlers and blacksmiths .....	
Miscellaneous supplies for barns .....	
[1 blank line.]	
Maintenance of rolling stock:	
Repairs and renewals of cars .....	
[3 blank lines.]	
Current expenses for transportation:	
Wages of drivers and conductors .....	
Wages of trackmen, switchmen, and other men employed on the line .....	
Removal of snow and ice .....	
Damages to persons and property .....	
[3 blank lines.]	
General expenses:	
Salaries of general officers and clerks .....	
Miscellaneous expenses of general office .....	
Advertising and printing .....	
Legal expenses .....	
Insurance .....	
[3 blank lines.]	
Total .....	

## H.—TAXES, LICENSES, AND OTHER MUNICIPAL CHARGES.

[Inquiries under this heading in special schedule relating to "Cable Railways" are common to this special schedule and are not here reproduced.]

## I.—NET INCOME, DIVIDENDS, ETC.

[Inquiries under this heading in special schedule relating to "Cable Railways" are common to this special schedule and are not here reproduced.]

## J.—BALANCE SHEET.

[Inquiries under this heading in special schedule relating to "Cable Railways" are common to this special schedule and are not here reproduced.]

## SPECIAL SCHEDULE.—RAPID TRANSIT FACILITIES IN CITIES: STEAM PASSENGER RAILWAYS.

Report of ....., for the year ending June 30, 1890.

### A.—NAME OF COMPANY, ETC.

1. Give corporate name of company making this return.
2. Give date of corporate charter.
3. Give number of stockholders.

## B.—DESCRIPTION OF ROAD AND EQUIPMENT.

1. Is any motive power other than steam used; and if so, what?
2. Give the total street length on which cars are operated by steam.
3. Give the total length of all tracks, including sidings, upon which cars are operated by steam.
4. Give weights per yard of rail used and number of miles of track laid with each.
5. Give gauge of track.
6. Give number of stations.
7. Give number of dummy engines.
8. Give number of locomotives.
9. Give number of passenger cars.
10. Give average number operated at once.
11. Give number of other cars.
12. Enumerate other items of equipment.

## C.—OFFICERS AND EMPLOYEES.

Class.	Number.	Total wages or salary paid during the year.
Officers and office employees .....		
Engineers and firemen .....		
Conductors .....		
Other trainmen .....		
Mechanics .....		
Switchmen, trackmen, and other men employed on the line .....		
Men employed at stations .....		
Total..... [3 blank lines.]		

Remarks.

## D.—PASSENGERS CARRIED, CAR MILEAGE, ETC.

1. Give the number of passengers carried during the year.
2. Describe other traffic, if any, and state the amount of it.
3. What is the average sum received per passenger carried?
4. Give the number of miles run by passenger cars propelled by locomotives or dummy engines.
5. Give the average speed of cars, including stops:
  - (a) In crowded portions of the city.
  - (b) In suburban districts.
6. Give the greatest speed:
  - (a) In crowded portions of the city.
  - (b) In suburban districts.

Remarks.

## E.—CAPITAL STOCK AND FUNDED DEBT.

[Inquiries under this heading in special schedule relating to "Cable Railways" are common to this special schedule and are not here reproduced.]

## F.—COST OF ROAD AND EQUIPMENT.

Items of cost.	Cost during the year.	Total cost to date.
Construction and real estate:		
Cost of roadbed superstructure and rails.....		
Right of way.....		
Buildings and fixtures.....		
Real estate.....		
..... [3 blank lines.]		
Total cost of construction and real estate.....		
Equipment:		
Passenger cars .....		
Locomotives and dummies.....		
Other rolling stock.....		
..... [3 blank lines.]		
Total cost of equipment.....		
Grand total cost of road and equipment.....		

# 860 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Give the total cost of street construction per mile of single track.

## G.—EARNINGS AND EXPENDITURES PERTAINING TO OPERATION.

### EARNINGS FROM OPERATION.

Source of earnings.	Amount earned during the year.
From passengers .....	
From advertising .....	
From other sources.....	
[2 blank lines.]	
Total .....	

### EXPENSES OF OPERATION.

For what expended.	Amount expended during the year.
Maintenance of way and structure:	
Repairs of roadbed superstructure and track.....	
Repairs of buildings.....	
[3 blank lines.]	
Maintenance of equipment:	
Repairs of locomotives and dummies .....	
Repairs of passenger cars.....	
Repairs of other rolling stock .....	
[4 blank lines.]	
Conducting transportation:	
Wages of all trainmen.....	
Wages of switchmen, trackmen, and others employed on the line.....	
Wages of men employed at stations.....	
Fuel for locomotives.....	
Damages to persons and property.....	
[3 blank lines.]	
General expenses:	
Salaries of general officers and clerks.....	
Miscellaneous expenses of general office.....	
Advertising and printing.....	
Legal expenses.....	
Insurance .....	
[3 blank lines.]	
Total .....	

Remarks.

## H.—TAXES, LICENSES, AND OTHER MUNICIPAL CHARGES.

[Inquiries under this heading in special schedule relating to "Cable Railways" are common to this special schedule and are not here reproduced.]

## I.—NET INCOME, DIVIDENDS, ETC.

[Inquiries under this heading in special schedule relating to "Cable Railways" are common to this special schedule and are not here reproduced.]

## J.—BALANCE SHEET.

[Inquiries under this heading in special schedule relating to "Cable Railways" are common to this special schedule and are not here reproduced.]

## WAGES AND PRICES.

[The inquiries relating to "wages and prices" at the censuses of 1850, 1860, and 1870 are contained in the schedule for "Social Statistics."

The schedules used at the census of 1880 called for a separate return for each establishment or firm to which sent, and where the inquiries are tabular in form they have been so reproduced.]

## CENSUS OF 1880.

## SPECIAL SCHEDULE.—WAGES IN MANUFACTURING INDUSTRIES.

## GENERAL STATEMENT.

1. Name of works.
2. Location of works: state; county; town or city.
3. Name of firm, corporation, or individual operating works.
4. Post-office address: state; county; town or city.
5. Total capital (real and personal) invested in works and employed in business.
6. What articles do you manufacture or produce? If the list includes a large number of articles, please give only the most important, or those on which you employ the largest number of persons.
7. Give date of establishment of works.
8. If incorporated, give date of incorporation.
9. Please state if you object to having the information given in this schedule published as given by you.

Rates of wages or average earnings of all classes of labor from 18— to 1880:

NOTE.—In filling up this table either rates of wages or average earnings may be used.

Classes of employees.	What unit of payment is used in table, i. e., are rates per day, week, year, ton, yard, etc.? Please state in this column.	Dates.				
		18—.	18—.	18—.	18—.	18—.
(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several pages of blank lines are printed in schedule.

## STATEMENTS SUPPLEMENTARY TO WAGES TABLES, AND EXPLANATORY OF THE SAME.

## Extra earnings:

What are and have been the opportunities in your business for extra earnings by overtime, holiday work, etc.?

If such opportunities exist, please state if they have been considered and included in the amounts in the tables of wages and earnings. If not, how much would they increase these rates or earnings?

## Allowances and deductions:

Are there any allowances or privileges given the employees of your works that would serve to increase the wages or earnings given in the wages tables? Among these may be reckoned free house, use of land for garden, privilege of keeping cow, horse, etc., free coal, board in whole or part, opportunities to purchase necessities of life at reduced rates, bonuses, percentage of profits, etc. If there are such allowances or privileges, please state what they are, and if they have not been considered in making up the wages tables please state what percentage in your judgment such allowances and privileges will increase the wages and earnings given in the wages tables.

Are employees obliged by the nature of their employment to pay out any part of their wages for tools, materials, or assistance, as for powder, tools, underhands, helpers, etc.? Please state, if such necessity exists, for what the payments are made, and if these have not been considered in making up wages tables, what percentage, in your judgment, these deductions would decrease the wages and earnings given in the wages tables.

## PAYMENTS.

*Intervals of payment.*

How often have the employees of your works been paid?

Dates.	Interval of payment, as each week, fortnight, month, etc.	Dates.	Interval of payment, as each week, fortnight, month, etc.
1830 .....		1860 .....	
1835 .....		1865 .....	
1840 .....		1870 .....	
1845 .....		1875 .....	
1850 .....		1880 .....	
1855 .....			

*Methods of payment.*

Are employees paid in whole or in part in merchandise or in store orders, either on stores kept by yourself or others? If so, please state what proportion, on the average, is paid in cash; what proportion in merchandise or orders.

If in the past you have paid in store orders but do not now, please state when this custom was discontinued and the reason for the discontinuance.

Hours of labor:

What have been the regular hours of labor per day of several of the most important classes of employees during the time covered by the wages tables?

Dates.	Classes of employees.						
1830 .....							
1835 .....							
1840 .....							
1845 .....							
1850 .....							
1855 .....							
1860 .....							
1865 .....							
1870 .....							
1875 .....							
1880 .....							

Please add any information relative to changes in the hours of labor that may occur to you as being of interest or value, especially with regard to increase or decrease of hours of labor, what the effect of any decrease has been upon production, character, and habits of employees, healthfulness, etc.

Regularity of employment:

What has been the average number of months per year your factory, mill, mine, etc., has been in operation in the periods mentioned below? In answering this question, if you have run at times but part time, please reduce this part time to full time.

Periods.	Average number of months in operation each year of period.	Periods.	Average number of months in operation each year of period.
1830 .....		1855 to 1860 .....	
1830 to 1835 .....		1860 to 1865 .....	
1835 to 1840 .....		1865 to 1870 .....	
1840 to 1845 .....		1870 to 1875 .....	
1845 to 1850 .....		1875 to 1880 .....	
1850 to 1855 .....		Year ending June 1, 1880.	

## Regularity of employment—Continued.

What has been the cause of the irregularity of employment at your works, if any? Some of the causes that may have operated are suggested, as follows: Character of business which can be followed only at certain seasons of the year; irregularity of demand for product, being greater at certain seasons than others; influence of fashions, strikes, lockouts, overproduction, etc.

## Efficiency of labor:

In the time covered by the rates of wages given in the table, has there been any increase or decrease in the efficiency of labor, otherwise than through the introduction of machinery?

To what do you ascribe this increased or diminished efficiency of labor?

## Labor-saving machinery:

If, in the time covered by the rates of wages given in the table any labor-saving or improved machinery has been introduced into your works, please give a brief description of the same, and its effect as shown in increasing output, lessening cost, increasing or decreasing number of employees, reducing wages, etc.

## Prices of product:

Please give below the average selling prices of some of the principal articles produced at your works, giving prices at works:

Dates.	List of Articles and Prices.							
	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)
1830 .....								
1835 .....								
1840 .....								
1845 .....								
1850 .....								
1855 .....								
1860 .....								
1865 .....								
1870 .....								
1875 .....								
1880 .....								

a In these blanks insert name of articles.

b Give in these blanks the unit by which they are sold, as per ton, yard, 100, etc.

## Cost of labor to a unit of product:

What is the cost of labor to a unit of product; that is, to a ton of pig iron, a yard of cloth, a ream of paper of a given grade, a pair of shoes of a certain quality, size, and kind, or of a unit of any article produced you may name? Please name certain of your most important or staple articles, and give entire total cost of labor to each article:

Dates.	Articles, and Cost of Labor to a unit of Product.							
	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)
	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)
1830 .....								
1835 .....								
1840 .....								
1845 .....								
1850 .....								
1855 .....								
1860 .....								
1865 .....								
1870 .....								
1875 .....								
1880 .....								

a In these spaces give list of articles.

b In these spaces give the unit of product, as per ton, yard, ream, etc.

c In these spaces give the entire cost of labor per unit of product.

## 864 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

Percentage of wages to cost:

Referring to table giving selling prices of product, please state what percentage wages bear to cost of product, including in cost materials, repairs, interest, labor, etc:

Dates.	List of Articles, and Percentage Wages bear to Cost.								
	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)
	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)
1830.....									
1835.....									
1840.....									
1845.....									
1850.....									
1855.....									
1860.....									
1865.....									
1870.....									
1875.....									
1880.....									

a In these blanks give list of articles.

b In these blanks give the unit by which the articles are sold, as per ton, etc.

c In these blanks give percentage of wages to cost.

Strikes and lockouts:

Have strikes or lockouts been frequent in your business? If so, please give a brief account of some that have occurred, noticing especially the causes, duration, result, losses in wages.

Healthfulness and accidents:

Is your trade dangerous or unhealthy? If so, please give nature of risk or disease, their fatality, and any suggestions as to their avoidance.

#### SPECIAL SCHEDULE.—WAGES IN THE BUILDING TRADES.

##### GENERAL STATEMENT.

1. Name of firm, corporation, or individual making this return.
2. Post-office address: state; county; town or city.
3. With what particular branch of the building trades are you connected?  
NOTE.—If an employee, state in what capacity, as carpenter, mason, painter, plumber, etc. If an employer, state whether as a general contractor, or for bricklaying, or carpenter work, painting, etc.
4. Over how great an extent of territory are the same wages as those you may give paid?  
NOTE.—State if town, city, county, or larger portion of a state pay same wages.
5. Please state if you object to having your name used as authority for these answers.
6. Rates of wages or average earnings of all classes of labor from 18— to 1880:  
NOTE.—In filling up this table either rates of wages or average earnings may be used.

Classes of employees.	Grade.	Unit of pay- ment.	Dates and seasons of the year.							
			18—.		18—.		18—.		18—, a	
			Sum- mer.	Win- ter.	Sum- mer.	Win- ter.	Sum- mer.	Win- ter.	Sum- mer.	Win- ter.
Bricklayer .....	Skilled .....	Per day .....								
" .....	" .....	Per month ..								
" .....	Unskilled ..	Per day .....								
" .....	" .....	Per month ..								
Mason .....	Skilled .....	Per day .....								
" .....	Unskilled ..	Per month ..								
Stonecutter .....	Skilled .....	Per day .....								
Hod carrier .....	" .....	Per day .....								
Carpenter and joiner ..	Skilled .....	" .....								
" .....	Unskilled ..	" .....								

a Also by single years from 1860 to 1880, inclusive.

## 6. Rates of wages or average earnings of all classes of labor, etc.—Continued.

Classes of employees.	Grade.	Unit of payment.	Dates and seasons of the year.							
			18—.		18—.		18—.		18—.	
			Sum- mer.	Win- ter.	Sum- mer.	Win- ter.	Sum- mer.	Win- ter.	Sum- mer.	Win- ter.
Plasterer.....	Skilled .....	Per day.....								
" .....	" .....	Per square yard.....								
" .....	Unskilled ..	Per day.....								
" .....	" .....	Per square yard.....								
Slaters .....	Skilled .....	Per day.....								
" .....	" .....	Per square yard.....								
Plumber .....	" .....	Per day.....								
Gas fitter.....	" .....	Per day.....								
Painter .....	Skilled .....	Per day.....								
" .....	" .....	Per square yard.....								
" .....	Unskilled ..	Per day.....								
" .....	" .....	Per square yard.....								
Glazier.....	Skilled .....	Per day.....								
Paper hanger.....	" .....	" .....								
Bricklayer's laborer or helper.....	Unskilled ..	" .....								
Mason's laborer or helper.....	" .....	" .....								
Plasterer's laborer or helper.....	" .....	" .....								
Plumber's laborer or helper.....	" .....	" .....								
Other common labor inside.....	" .....	" .....								
Other common labor outside.....	" .....	" .....								
Apprentices.....	" .....	" .....								
" .....	" .....	" .....								
" .....	" .....	" .....								
" .....	" .....	" .....								

## STATEMENTS SUPPLEMENTARY TO WAGES TABLES AND EXPLANATORY OF THE SAME.

## 7. Allowances and deductions:

Are there any allowances or privileges given employees that would serve to increase the wages or earnings given in the wages tables? Among these may be reckoned free house, use of land for garden, privilege of keeping cow, horse, etc., free fuel, board in whole or part, opportunities to purchase necessities of life at reduced rates, bonuses, percentage of profits, etc. If there are such allowances or privileges, please state what they are; and if they have not been considered in making up the wages tables, please state what percentage in your judgment such allowances and privileges will increase the wages and earnings given in the wages tables.

## PAYMENTS.

*Intervals of payment.*

8. What is and has been the custom of the building trades in your section of country as to the interval of payment of wages? That is, are men paid each week, fortnight, or month?

Date.	Interval of payment, as each week, fort- night, month, etc.	Date.	Interval of payment, as each week, fort- night, month, etc.
1830 .....		1860 .....	
1835 .....		1865 .....	
1840 .....		1870 .....	
1845 .....		1875 .....	
1850 .....		1880 .....	
1855 .....			

*Methods of payment.*

9. Are employees paid in whole or in part in merchandise or in store orders, either on stores kept by yourself or others? If so, please state what proportion, on the average, is paid in cash; what proportion in merchandise or orders.
10. If in the past you have paid in store orders but do not now, please state when this custom was discontinued; and the reason for the discontinuance.
11. Hours of labor:  
What have been the regular hours of labor per day of each of the following classes of employees during the time covered by the wages tables?

Date.	Classes of employees.						
	Brick-layers.	Masons.	Carpenters and joiners.	Plasterers.	Plumbers.	Painters.	Common laborers.
1830.....							
1835.....							
1840.....							
1845.....							
1850.....							
1855.....							
1860.....							
1865.....							
1870.....							
1875.....							
1880.....							

12. Please add any information relative to changes in the hours of labor that may occur to you as being of interest or value, especially with regard to increase or decrease of hours of labor, what the effect of any decrease has been upon production, character, and habits of employees, healthfulness, etc.
13. Regularity of employment:  
What is and has been the effect of the seasons on the regularity of employment? If you are an employer, please state the average number of men employed in summer and in winter.  
If an employee, please state the average number of days worked each year from May to October, and November to April.
14. Efficiency of labor:  
In the time covered by the rates of wages given in the table, has there been any increase or decrease in the efficiency of labor or the amount of labor a man can do in a day otherwise than through the introduction of machinery?
15. To what do you ascribe this increased or diminished efficiency of labor?
16. Labor-saving machinery:  
If, in the time covered by the rates of wages given in the table, any labor-saving or improved machinery has been introduced into the building trades, or if, to any great extent, articles such as doors, sash, blinds, etc., are now made by machinery which were formerly made by hand, please give a brief description of the machinery or processes, and their effect as shown in increasing output, lessening cost, increasing or decreasing number of employees, reducing wages, etc.
17. Strikes and lockouts:  
Have strikes or lockouts been frequent in your business? If so, please give a brief account of some that have occurred during the past five years, noticing especially the causes, duration, result, losses in wages, etc.
18. Healthfulness and accidents:  
Is your trade dangerous or unhealthy? If so, please give nature of risk or disease, their fatality, and any suggestions as to their avoidance.

*Memoranda.*

Please add any facts or information that you may deem of importance to this investigation.

## SPECIAL SCHEDULE.—AVERAGE RETAIL PRICES OF NECESSARIES OF LIFE.

## GENERAL STATEMENT.

1. Name of firm, corporation or individual making return.
2. Post-office address: state; county; town or city.
3. In what business are you engaged (as butcher, provision dealer, grocer, merchant, general store, etc.)?
4. How long have you been engaged in your present business, or how long has the stand been occupied for the same business?
5. Table showing the average retail prices of provisions, groceries, and other leading articles of consumption; also prices of board and house rent:

(NOTE.—In filling out this table please give retail prices and prices that will be a fair average of the year, if possible. If this can not be done, give prices on or about June 1 of each year.)

Articles.	Per—	1851.	1852.	1853.	1854.	1855.	1856. (a)
<b>PROVISIONS.</b>							
Flour—wheat, superfine.....	Barrel.....						
extra family.....	Barrel.....						
rye.....	Barrel.....						
Corn meal.....	Barrel.....						
Beef—fresh, roasting pieces.....	Pound.....						
soup pieces.....	Pound.....						
rump steaks.....	Pound.....						
corned.....	Pound.....						
Veal—fore quarters.....	Pound.....						
hind quarters.....	Pound.....						
cutlets.....	Pound.....						
Mutton—fore quarters.....	Pound.....						
leg.....	Pound.....						
chops.....	Pound.....						
Pork—fresh.....	Pound.....						
corned or salted.....	Pound.....						
bacon.....	Pound.....						
hams, smoked.....	Pound.....						
shoulders.....	Pound.....						
sausages.....	Pound.....						
Lard.....	Pound.....						
Codfish, dry.....	Pound.....						
Mackerel, pickled.....	Pound.....						
Butter.....	Pound.....						
Cheese.....	Pound.....						
Potatoes.....	Bushel.....						
Rice.....	Pound.....						
Beans.....	Quart.....						
Milk.....	Quart.....						
Eggs.....	Dozen.....						
<b>GROCERIES, ETC.</b>							
Tea, Oolong, or other good black.....	Pound.....						
Coffee, Rio, green.....	Pound.....						
roasted.....	Pound.....						
Sugar, good brown.....	Pound.....						
yellow C.....	Pound.....						
yellow B.....	Pound.....						
Molasses, New Orleans.....	Gallon.....						
Puerto Rico.....	Gallon.....						
Sirup.....	Gallon.....						
Soap, common.....	Pound.....						
Starch.....	Pound.....						
Fuel—coal, anthracite.....	Ton.....						
bituminous.....	Ton.....						
wood, hard.....	Cord.....						
pine.....	Cord.....						
Oil, coal or carbon.....	Gallon.....						
<b>DOMESTIC DRY GOODS, ETC.</b>							
Shirtings, brown, 4 x 4, standard quality.....	Yard.....						
bleached, 4 x 4, standard quality.....	Yard.....						

a Also by single years from 1857 to 1880, inclusive.

5. Table showing the average retail prices of provisions, etc.—Continued.

Articles.	Per—	1851.	1852.	1853.	1854.	1855.	1856.
DOMESTIC DRY GOODS, ETC.—continued.							
Sheetings, brown, 9 x 8, standard quality .....	Yard .....						
bleached, 9 x 8, standard quality .....	Yard .....						
Cotton flannel, medium quality .....	Yard .....						
Tickings, good quality .....	Yard .....						
Prints, Merrimac .....	Yard .....						
Mousseline de laines .....	Yard .....						
Satinets, medium quality .....	Yard .....						
Boots, men's heavy .....	Pair .....						
HOUSE RENT.							
Four-roomed tenements .....	Month .....						
Six-roomed tenements .....	Month .....						
BOARD.							
For men .....	Week .....						
For women .....	Week .....						

6. Please state if prices are average prices per year or prices on or about June 1.

### WEALTH, DEBT, AND TAXATION.

[The inquiries relating to "Valuation and taxation," etc., at the censuses of 1850, 1860, and 1870 are contained in the schedule for "Social statistics."

The special schedules used at the censuses of 1880 and 1890 called for a separate return for each state, county, or other civil division to which sent, and where the inquiries are tabular in form they have been so reproduced.]

### CENSUS OF 1880.

#### ASSESSMENT OF PROPERTY IN CITIES AND TOWNS.

Report in relation to the Assessment of Property in the City or Town of .....,  
County of ....., state of ....., made the ..... day of ....., 1880.

1. Do you assess real estate at its full value, or at some lower rate?
  2. By what standard do you determine its value?
  3. Do you assess improved property on the same basis or by the same standard as town lots or lands used for agricultural purposes?
  4. Are dwelling houses assessed on the same basis as business blocks and manufactories? (Please answer in detail, if possible.)
    - (a) What per cent, in your opinion, does the assessed value of town lots and farming lands bear to the true value?
    - (b) What per cent does the assessed value of improved lots and dwelling houses bear to the true value?
    - (c) What per cent does the assessed value of business blocks, stores, etc., bear to the true value?
    - (d) What per cent does the assessed value of real estate used for manufacturing purposes bear to the true value?
  5. What per cent, in your opinion, does the assessed value of all real property bear to the true value?
- Please state in detail, if possible, how you arrived at your conclusions, giving any instances of recent sales of real estate, the class of property sold, the amount such pieces of property sold for, and the value put upon the same property by the assessor.

## FINANCIAL CONDITION OF CITIES.

Report of the Financial Condition of the [City] of ....., County of ....., and  
State of ....., for the fiscal year ending on the ..... day of ....., 188—

## VALUE OF PROPERTY AND REVENUE.

Valuation:

	Assessed value.	Estimated full value.
Total value of real property .....		
Total value of personal property .....		
Aggregate value of real and personal property .....		

Revenue:

Total receipts from taxation.  
Total receipts from water rent.  
Total receipts from tolls.  
Total receipts from rent of wharves.  
Total receipts from liquor licenses.  
Total receipts from vehicle licenses.  
Total receipts from all licenses.  
Total receipts from fines.  
Receipts from other sources (in detail if possible).  
Total receipts from all sources.

## EXPENDITURES.

For what purpose expended.	Amount.
Schools .....	
Streets .....	
Sewers .....	
Water .....	
Sanitary purposes .....	
Poor .....	
Lighting .....	
Fire department .....	
Police .....	
Parks and public spaces:	
Cost of land purchased .....	
Cost of construction .....	
Maintenance .....	
Public library .....	
Municipal buildings .....	
Jails .....	
Judicial purposes .....	
Lunatic asylums .....	
Cemeteries .....	
Salaries .....	
Interest .....	
Debt and interest .....	
Other purposes .....	
Total expenditures for year .....	

## 870 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## TAXATION.

	Rate of tax per \$100.	Amount of taxes raised.
State .....		
County .....		
School .....		
Streets (a) .....		
Sewers .....		
Water .....		
Sanitary purposes .....		
Poor .....		
Lighting .....		
Fire department .....		
Police .....		
Parks and public spaces (a) .....		
Public library .....		
Jails .....		
Judicial purposes .....		
Lunatic asylums .....		
Cemeteries .....		
Salaries .....		
Interest .....		
Debt and interest .....		
Other purposes .....		
Total .....		

a If the expenses of improvements (such as paving, cleaning streets, etc.) are charged upon the individuals directly benefited, please so state.

## BONDED INDEBTEDNESS.

Years of issue.	What issued for—giving full particulars of all bonds.	Length of time from date bonds run be- fore maturity.	Date of maturity.	Amount paid.	Amount outstand- ing.	Rate of interest.
(a)	(a)	(a)	(a)	(a)	(a)	(a)
Total bonded indebt- edness .....						

## FLOATING INDEBTEDNESS.

When incurred.	Contracted for —.	Composed of —.	Dates of maturity of such obli- gations.	Amount outstand- ing.	Rate of interest.
(a)	(a)	(a)	(a)	(a)	(a)

## SINKING FUND AND OTHER RESOURCES.

Amount of sinking fund.	Date when established.	Purpose for which estab- lished.	Composed of—		Other resources.
			Bonds.	Other items.	
(a)	(a)	(a)	(a)	(a)	(a)

## ASSETS.

Composed of—	Value of same.	
	Par value.	Estimated value.
(a)	(a)	(a)
Total .....		

a Several blank lines are printed in schedule.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 871

## REAL ESTATE EXEMPT FROM TAXATION.

Character of property, whether church, educational, charitable, railroad or other—give details.	Estimated value.	
	Land.	Improvements.
(a)	(a)	(a)

a Several blank lines are printed in schedule.

## FINANCIAL CONDITION OF COUNTIES.

Report of the Financial Condition of the County of ....., in the State of ....., for the fiscal year ending on the ..... day of ....., 188...

### VALUE OF PROPERTY AND REVENUE.

Valuation:

	Assessed value.	Estimated full value.
Total value of real property.....		
Total value of personal property.....		
Aggregate value of real and personal property.....		

Taxation:

Total receipts (a) from taxation for all purposes except schools.  
 Total receipts from taxation for school purposes.  
 Total receipts from state tax for all purposes except schools.  
 Total receipts from state tax (or apportionment) for schools.

### EXPENDITURES.

	Amount.
Schools.....	
Streets, roads, or bridges.....	
Sanitary purposes.....	
Poor.....	
All other purposes.....	
Total expenditures.....	

### BONDED INDEBTEDNESS.

Years of issue.	What issued for—giving full particulars of all bonds.	Length of time from date bonds run before maturity.	Date of maturity.	Amount paid.	Amount outstanding.	Rate of interest.
(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

a Only the tax of the county, as a county, is desired. The taxes of municipal corporations, townships, or school districts should not be included.

# 872 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## FLOATING INDEBTEDNESS.

When incurred.	Contracted for—	Composed of—	Dates of maturity of such obligations.	Amount outstanding.	Rate of interest.
(a)	(a)	(a)	(a)	(a)	(a)

## SINKING FUND AND OTHER RESOURCES.

Amount of sinking fund.	Date when established.	Purpose for which established.	Composed of—		Other resources.
			Bonds.	Other items.	
(a)	(a)	(a)	(a)	(a)	(a)

## ASSETS.

Composed of—	Value of same.	
	Par value.	Estimated value.
(a)	(a)	(a)

aSeveral blank lines are printed in schedule.

## FINANCIAL CONDITION OF SCHOOL DISTRICTS.

Report of the Financial Condition of School District No. ...., Town of ....., State of .....

Please to state what was the indebtedness (if any) of your district on the ..... day of ....., 1880.

Please to state what was the total amount of money raised by taxation within your school district, under the authority of the district, for school purposes, during the year ending the ..... day of ....., 1880.

[This is not intended to include the district's share of school taxes imposed or apportioned by authority of the township, county, or the state, but only such taxes as are imposed by vote of the school district upon the inhabitants thereof.]

## FINANCIAL CONDITION OF TOWNS, VILLAGES, AND TOWNSHIPS.

Report of the Financial Condition of the [town, village, or township] of ....., County of ....., and State of ....., for the fiscal year ending on the ..... day of ....., 18—.

## VALUE OF PROPERTY AND REVENUE.

Valuation:

	Assessed value.	Estimated full value.
Total value of real property .....		
Total value of personal property .....		
Aggregate value of real and personal property .....		

Revenue:

Total receipts from taxation.  
Total receipts from liquor licenses.  
Receipts from all other sources.  
Total receipts.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 873

## EXPENDITURES.

For what purpose expended.	Amount.
Schools .....	
Streets, roads, or bridges .....	
Sanitary purposes .....	
Poor .....	
Police .....	
Fire department .....	
Debt and interest .....	
All other purposes .....	
Total expenditures.....	

## BONDED INDEBTEDNESS.

Years of issue.	What issued for, giving full particulars of all bonds.	Length of time from date bonds run before maturity.	Date of maturity.	Amount paid.	Amount outstanding.	Rate of interest.
(a)	(a)	(a)	(a)	(a)	(a)	(a)

## FLOATING INDEBTEDNESS.

When incurred.	Contracted for—	Composed of—	Dates of maturity of such obligations.	Amount outstanding.	Rate of interest.
(a)	(a)	(a)	(a)	(a)	(a)

## SINKING FUND AND OTHER RESOURCES.

Amount of sinking fund.	Date when established.	Purpose for which established.	Composed of—		Other resources.
			Bonds.	Other items.	
(a)	(a)	(a)	(a)	(a)	(a)

## ASSETS.

Composed of—	Value of same.	
	Par value.	Estimated value.
(a)	(a)	(a)

a Several blank lines are printed in schedule.

## CENSUS OF 1890.

## SPECIAL SCHEDULE.—COUNTY FINANCE.

Report of the Expenditures of the ..... of ....., County of ....., State of ....., from 1880 to 1889, inclusive.

## EXPENSES OF COUNTY MANAGEMENT AND CONSTRUCTION.\*

The term "maintenance" in all cases includes care and repair of buildings and apparatus, salaries (unless separately specified or connected with construction), and all current expenses.  
The term "construction" includes construction of all kinds in connection with the departments specified, and also all salaries which can be definitely assigned to construction.

Year.	1. Education.				2. Fire.		3. Public lighting.	4. Police.		5. Penal institutions and reforma- tories.	
	(a) Li- braries.	(b) Schools.			(a) Main- tenance.	(b) Con- struction.		(a) Main- tenance.	(b) Con- struction.	(a) Main- tenance.	(b) Con- struction.
		In- struc- tion.	Buildings.								
			Mainte- nance.	Con- struc- tion.							
1880.....											
1881.....											
1882.....											
1883.....											
1884.....											
1885.....											
1886.....											
1887.....											
1888.....											
1889.....											
Total.											

Year.	6. Poor.			7. Hospitals.†		8. Public baths.		9. Public music.		10. Markets. (Deficit.) ‡
	(a) Out- door.	(b) Institutions.		(a) Main- tenance.	(b) Con- struction.	(a) Main- tenance.	(b) Con- struction.	(a) Main- tenance.	(b) Con- struction.	
		Main- tenance.	Con- struc- tion.							
1880.....										
1881.....										
1882.....										
1883.....										
1884.....										
1885.....										
1886.....										
1887.....										
1888.....										
1889.....										
Total.										

\* See General Explanation.

† Exclude quarantine and smallpox hospitals.

‡ By "deficit" is meant maintenance and interest on any debt incurred in connection with markets, minus receipts.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 875

## EXPENSES OF COUNTY MANAGEMENT AND CONSTRUCTION—Continued.

Year.	11. Wharves. (Deficit.) *	12. Streets and bridges. †				13. Sewers.		14. Public buildings. ‡		15. Construc- tions for commen- cial under- takings. §
		(a) Cleaning.	(b) Main- tenance and re- pairs.	(c) Construction.		(a) Cur- rent ex- penses.	(b) Con- struc- tion.	(a) Main- tenance.	(b) Con- struc- tion.	
				Dam- ages.	Cost of con- struc- tion.					
1880....										
1881....										
1882....										
1883....										
1884....										
1885....										
1886....										
1887....										
1888....										
1889....										
Total.										

Year.	16. Construc- tions not already specified.	17. Parks and public spaces.			18. Salaries. ¶		19. Judicial expenses.			20. Health depart- ment.
		(a) Main- tenance.	Cost of—		(a) Leg- islative.	(b) City officers.	(a) Buildings.		(b) Salar- ies and other ex- penses.	
			(b) Land pur- chased.	(c) Con- struc- tion.			Main- tenance.	Con- struc- tion.		
1880....										
1881....										
1882....										
1883....										
1884....										
1885....										
1886....										
1887....										
1888....										
1889....										
Total.										

\*By "deficit" is meant maintenance and interest on any debt incurred in connection with wharves, minus receipts.

†Where maintenance or construction is devolved upon abutting owners, without the intervention of the county treasury, the expenditures of such owners should be included under both expenditures and receipts.

‡Include only public buildings not included under other headings, such as fire, police, etc.

§"Commercial Undertakings" include undertakings of a business nature which do not necessarily form a part of county administration; waterworks, gas works, street railways, and ferries are illustrations. Specify in a note on page 7 (of printed schedule) the nature of constructions; if owned by county or state, and if managed directly or let out to private corporations.

¶Where possible, salaries should be included in the expenses of the various departments. Only such salaries as can not be so assigned should be included here. If it is necessary to include the salaries of any important departments (because they can not be divided in accordance with this plan), the character and scope of the department and the amount paid in salaries should be stated in a note on page 7 (of printed schedule).

||Be careful to exclude items under other heads, such as street cleaning, hospitals, etc. Include, however, smallpox and quarantine hospitals and collection of garbage. Constructions under this head should be specified in a note on page 7 (of printed schedule).

# 876 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## EXPENSES OF COUNTY MANAGEMENT AND CONSTRUCTION—Continued.

Year.	21. Deficit in commercial undertakings.*		22. Interest on debt.	23. Other period- ical or important expendi- tures. †	24. Miscellane- ous.	25. Total ordi- nary ex- penses.	26. Balance on hand.
	(a) Water- works.	(b) Other undertak- ings.					
1880.....							
1881.....							
1882.....							
1883.....							
1884.....							
1885.....							
1886.....							
1887.....							
1888.....							
1889.....							
Total ....							

## EXPENDITURES UNDER SPECIAL HEADINGS.

[See General Explanation and Queries on pages 6 and 7 (of printed schedule).]

Year.	27. Loans.		28. Sinking fund. §	29. Special funds. ¶	30. Waterworks.	
	(a) Tem- porary. ‡	(b) Bonded.			(a) Mainte- nance.	(b) Construc- tion.
1880.....						
1881.....						
1882.....						
1883.....						
1884.....						
1885.....						
1886.....						
1887.....						
1888.....						
1889.....						
Total ....						

Year.	31. Other commercial under- takings.		32. Markets.		33. Wharves.	
	(a) Mainte- nance.	(b) Construc- tion.	(a) Mainte- nance.	(b) Construc- tion.	(a) Mainte- nance.	(b) Construc- tion.
1880.....						
1881.....						
1882.....						
1883.....						
1884.....						
1885.....						
1886.....						
1887.....						
1888.....						
1889.....						
Total ....						

\* By "deficit" is meant expenses of maintenance and interest on debt incurred in connection with such undertakings, minus receipts.

† Include expenditures not previously specified, but too important to be classed as miscellaneous. Specify in a note the purposes of expenditures, and the amount for each, in a note on page 7 (of printed schedule.)

‡ Include all debt redeemed, even if paid from the sinking fund or other source without the intervention of the county treasury.

§ Include all payments made to sinking funds, except for cancellation of county debt, held by such funds from any source of county revenue, except the sinking funds themselves or special funds.

¶ Give the expenditures of the funds themselves, not payments from the county treasury to the funds. State in a note on page 7 (of printed schedule) what portions of these expenditures consist of payments from the funds to the county treasury.

| Total expenditures, including interest on debt incurred in connection with such undertakings, but not payment of principal.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 877

## SINKING FUND STATEMENT.

[Includes all payments to meet county expenditures except for the redemption of debt. See General Explanation on page 6 (of printed schedule.)]

Year.	Expenditures.					5. Amount of fund at end of year, including cash balance.
	1. Payments to city treasury.	2. Debt redeemed.	3. Investments.	4. Other purposes.		
				(a) Amount.	(b) Purpose.	
1880.....						
1881.....						
1882.....						
1883.....						
1884.....						
1885.....						
1886.....						
1887.....						
1888.....						
1889.....						
Total .....						

## LIABILITIES.

Year.	1. Debt.		2. Outstanding claims.	3. Other liabilities.	
	(a) Temporary.	(b) Bonded.		(a) Amount.	(b) Nature of liability.
1880.....					
1881.....					
1882.....					
1883.....					
1884.....					
1885.....					
1886.....					
1887.....					
1888.....					
1889.....					
Total ....					

## ASSESSED VALUATION.

Real estate.		Personal property.	
Real estate, 1880.....	\$	Personal property, 1880.....	\$
Real estate, 1889.....	\$	Personal property, 1889.....	\$

## GENERAL EXPLANATION.

I. Expenditures for county purposes are to be regarded as going out from a common treasury, however the financial administration may be divided among different departments and boards, which act independently of the county treasury. For example: If the debt, waterworks, school, or police administrations are in the hands of special boards, which receive and expend the income from those sources and call on the county treasury only to make up the deficit, or simply pay to the county treasury the surplus, the total transactions of such boards (expenditures classified according to the headings in the schedule), and not merely the transactions with the county treasury, are to be included just as if all the expenditures were drawn from it.

II. If in your county any important functions usually included in county administration, such as streets, schools, police, fire, poor relief, etc., are in the hands of other authorities, that fact should be noted, and the character of the authority exercising such administration described.

III. The greatest care should be taken that the figures under all classes of expenditure represent the money actually expended by the county, and that they in no case represent transfers from one account to another. Thus, if \$100,000 is received from

a franchise tax on street railways, of which \$50,000 is paid to a sinking fund and \$50,000 to a park board, and if, of this latter \$50,000, \$40,000 is paid back to the county treasury to meet expenses incurred by said board, the transaction should be entered thus: Received—from franchise, \$100,000. Expended—for sinking fund, \$50,000 (included in total amount paid to sinking fund, as per schedule); for parks, \$40,000 (included in total expenditure for parks), supposing the whole \$40,000 has actually been paid out by the county treasurer; balance on hand, \$10,000 (included in total balance). No entry should be made of any receipts from, or payment to, park board.

IV. By "Special funds" are meant funds of which, by the conditions of their establishments, the county has only the administration, and which it can not turn to any other purpose than that to which they are devoted. These funds are frequently the result of bequests by outside parties, but might properly include police or firemen's pension funds, established by the county, and other funds of a similar nature. The term, however, is not meant to include funds which exist not for the purpose of permanent accumulation, but merely as a convenient form of administration for certain classes of expenditure. The expenditure of this latter class of funds should be counted in with the other county expenditures, and balances in hand should be included in the general balance. Nor does the term "Special funds" include funds accumulated against debt incurred in any branch of the administration. Such funds, by whatever name called, are sinking funds, and should be treated as such.

V. In the case of "Special funds," properly so called, payments to such funds out of the county treasury should be included in county expenditures under the proper heading, but the expenditures of the funds themselves should be treated separately under the heading "Expenditures under special heading," provided for that purpose. If such special funds exist, a statement is desired of their character, purpose, and amount, or a reference to some public document where the desired information can be obtained.

VI. Whenever it is found impossible to divide expenditures of any department in accordance with the schedule headings, give a statement in as close accordance as possible, and state in a note what is included in the figures given.

VII. In the first five of the following queries, on page 7 (of printed schedule), the figures in the first column refer to similar figures in the columns of the foregoing schedule, on pages 2-5 (of printed schedule). The figures in the second column indicate the page of the schedule on which the column can be found. The queries in the third column, on page 7 (of printed schedule), correspond with instructions inserted below the tabular forms on the page indicated in the second column. The last query refers to Paragraph V, on this page (of printed schedule).

VIII. Do not include expenditures properly belonging to the municipality. A separate schedule will be sent to municipalities.

#### REMARKS.

[Enter any remarks deemed necessary to render the statements on pages 2-5 (of printed schedule) more complete. Also enter any statements such as are called for in Paragraphs II and VI, on this page (of printed schedule).]

[Page 7 of printed schedule.]

Column No.	Page No.	Queries.	Replies.
15	3	What is the nature of "Constructions for commercial undertakings?" Specify if owned by municipality or state; also insert whether managed directly or let out to private corporations.	
18	3	What departments are included under this heading? Give character and scope of such departments, with amounts paid during each year.	
20	3	Specify "Constructions" under the heading of "Health department," giving details as to cost, etc., with date.	
23	4	For what purposes was the amount shown under this heading expended during each year? Give items briefly, with amount opposite each item.	
29	4	What portions of expenditures under "Special funds" consist of payments from the fund to the municipal treasury?	
	6	Give the character, purpose, and amount of all special funds, or state in which of the books forwarded for use in compiling the reports of the eleventh census this information can be found.	

## SPECIAL SCHEDULE—COUNTY FINANCE.

Report of the Revenue of the ..... of ..... County of ..... State of .....  
from 1880 to 1890, inclusive.

## ORDINARY COUNTY REVENUE.

[See General Explanation and Queries on pages 6-7 of printed schedule.]

Year.	1 Balance on hand.*	2 Taxes.†					
		a. Real.	b. Personal.	c. Poll or registry.			d. Other taxes.
				Number assessed.	Number paying.	Amount.	
1880							
1881							
1882							
1883							
1884							
1885							
1886							
1887							
1888							
1889							
Total							

Year.	3. Licenses.				4. Franchises.‡	
	a. Liquor.		b. Trade.		c. Professions.	d. Other licenses.
	Beer.	Other liquors.	Tobacco.	Other.	a. Rail-way.	b. Other franchises.
1880						
1881						
1882						
1883						
1884						
1885						
1886						
1887						
1888						
1889						
1890						
Total						

\* Include all balances applicable to general purposes or to any of the items mentioned under "Expenses of county government and construction," in accompanying schedule of expenditures. Exclude all balances in the hands of collecting funds, or of special funds, as already defined.

† Include collections of taxes as assessed, assessed on taxes, and the amount of tax assessed on lands taken for improvement of roads. Exclude under any special item of revenue such as special amounts of taxing corporations that have been set as taxes under 3 and 4, should be placed under 3 and 4, and the special items of taxes and the amount received from each should be specified in a note on page 7 of printed schedule. Exclude taxes owed by the county and paid over to the clerk, taxes collected for charitable purposes, or school, and money received by redemption of land sold for taxes.

‡ Include amounts from any source as assessed and payable persons and licenses for purposes of public corporations. Exclude amounts payable under a special assessment made by railway and other corporations for transportation or other if specially assessed as license. Report in a note on page 7 of printed schedule the license received under 3 with amount received from each.

§ Include all franchises made by corporations except special franchises such as railways, and corporations under corporations and corporations as defined in the printed schedule. Report in a note on page 7 of printed schedule the amount of license under 3 with the amount from each.

## 880 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## ORDINARY COUNTY REVENUE—Continued.

Year.	5. Special assessments.*				6. Fines, penalties, and forfeitures.			
	(a) Streets.	(b) Sewers.	(c) Side-walks.	(d) Other assessments.	(a) Fines.		(b) Penalties.	(c) Forfeitures.
					Drunkenness.	Other fines.		
1890.....								
1891.....								
1892.....								
1893.....								
1894.....								
1895.....								
1896.....								
1897.....								
1898.....								
1899.....								
Total ..								

Year.	7. Rents.†	8. Markets. (Net profits.)‡	9. Wharves. (Net profits.)‡	10. Profits of commercial enterprises.§		11. Income from productive investments.¶	12. Income from public institutions.¶	
				(a) Water.	(b) Other enterprises.		(a) Jails and prisons.	(b) Other public institutions.
1890.....								
1891.....								
1892.....								
1893.....								
1894.....								
1895.....								
1896.....								
1897.....								
1898.....								
1899.....								
Total ..								

\* Include assessments for all purposes (paying for land, construction, and maintenance), and interest on such assessments. Exclude sums refunded. Where maintenance or construction is devolved upon abutting owners without the intervention of the county treasury, the expenditures of such owners should be included under both receipts and expenditures. (a) Where abutting owners are required to give land for street construction the value of the land should be included. (b) Include payments for privilege of connecting with sewers. (c) Include curbing. (d) Specify in a note on page 7 (of printed schedule) purposes and amounts for each.

† Include rents received from all sources, except such as come under "Franchises," "Markets," or "Wharves," or such as are received in connection with commercial undertakings or public institutions. See inquiries 4, 8, 9, 10, and 12.

‡ "Net profits"—total receipts (not including loans), minus expenses of management, maintenance, and interest on any debt incurred in connection with markets, wharves, or commercial undertakings. Expenditures for new construction, or debt payment, should not be counted. "Commercial undertakings" (10) include undertakings of a business nature which do not necessarily form a part of county administration. Waterworks, gas works, street railways, and ferries are illustrations. Specify in a note on page 7 (of printed schedule) the undertakings of this character owned by the county, and state whether they are managed directly or let out to private corporations.

§ Do not include income from investments belonging to sinking funds, or special funds already described.

¶ Incomes from all sources, including rents, board of patients, farms, etc. Exclude contributions from the state, except in form of payment for board of those confined in such institutions. If also regular state institutions, the amount received from the state, and the expenses incurred on account of the state, should be noted on page 7 (of printed schedule). (b) Specify on page 7 (of printed schedule) the sources, and amount from each.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 881

## ORDINARY COUNTY REVENUE—Continued.

Year.	13. From the state.*		14. Interest on deposits.†	15. Other regular sources of income.‡	16. Miscel- laneous.	17. Total or- dinary re- ceipts.	General re- marks concern- ing ordinary county revenue.
	(a) For schools.	(b) For other pur- poses.					
1880.....							
1881.....							
1882.....							
1883.....							
1884.....							
1885.....							
1886.....							
1887.....							
1888.....							
1889.....							
Total ..							

\* Include all receipts from the state, except such as are in payment for some specific service rendered, such as the board of inmates at public institutions. (b) Specify on page 8 (of printed schedule) purposes and amounts.

† Do not include interest on deposits belonging to sinking funds or special funds.

‡ Include receipts not specified in the schedule, but too important to be classed as miscellaneous. Specify on page 8 (of printed schedule), sources and amount from each.

## RECEIPTS UNDER SPECIAL HEADINGS.

[See General Explanation and Queries on page 8 (of printed schedule).]

Year.	18. Loans.		19. Sinking fund.*	20. Special fund.†	21. Water. (Total re- ceipts.)‡	22. Other com- mercial un- dertakings. (Total re- ceipts.)‡	23. Markets. (Total re- ceipts.)‡	24. Wharves. (Total re- ceipts.)‡
	(a) Tem- porary.	(b) Bonded.						
1880.....								
1881.....								
1882.....								
1883.....								
1884.....								
1885.....								
1886.....								
1887.....								
1888.....								
1889.....								
Total ....								

\* Include all payments made from sinking funds (whether through the county treasury or not) to meet any county expenditure or liability. Such would be transfers from sinking funds to special funds, payments from sinking funds to redeem county debt, or the use of the principal or income of sinking funds to meet any county expenditure. The purposes and amounts of such payments should be specified on page 8 (of printed schedule).

† Include all receipts of such funds from whatever source derived. Specify on page 8 (of printed schedule) what proportion of such receipts come from the county treasury, the sinking funds, or other special funds.

‡ Include all receipts, except from loans. Under 22 specify on page 8 (of printed schedule) the undertakings, and amount from each.

## 882 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## SINKING FUND STATEMENT.

[See General Explanation on page 6 (of printed schedule).]

Year.	1. Amount of funds at begin- ning of year, including bal- ance in hand.	Receipts.				
		2. Interest on investments.	3. Investments paid off.	4. County treas- ury.*	5. Other sources.†	
					(a) Amount.	(b) Description.
1880.....						
1881.....						
1882.....						
1883.....						
1884.....						
1885.....						
1886.....						
1887.....						
1888.....						
1889.....						
Total....						

\* Include all receipts of sinking funds from any source of county revenue, whether such receipt has passed through the county treasury or not.

† Specify under "Description" any details of importance.

## AVAILABLE ASSETS.

Year.	1. Cash in treasury.	2. Sinking fund.	3. Salable land and buildings.	4. Taxes and assessments in arrears.	5. Other debts due, if re- garded as collectible.	6. Other available assets.*	7. Total.
1880.....							
1881.....							
1882.....							
1883.....							
1884.....							
1885.....							
1886.....							
1887.....							
1888.....							
1889.....							

\* State in this space the nature and description of assets under this heading.

## NONAVAILABLE ASSETS.

[Cost values only of nonavailable assets to be given.]

Year.	1. Water- works.	2. Gas works.	3. School- houses.	4. Public buildings.†	5. Parks.	6. Other assets not available.	7. Total.
1880.....							
1881.....							
1882.....							
1883.....							
1884.....							
1885.....							
1886.....							
1887.....							
1888.....							
1889.....							

† State, if possible, on page 8 (of printed schedule) the character and purpose of such buildings.

## GENERAL EXPLANATION.

Receipts for county purposes are to be regarded as coming into a common fund, however the financial administration may be divided among different departmental boards which act independently of the county treasury. For example: If the receipts for waterworks, school, or police administrations are in the hands of special boards which receive and expend the income from those sources and call on the county treasury only to make up the deficit, or simply pay to the county treasury the balance of the total transactions of such boards (receipts classified according to the heading in the schedule), and not merely the transactions with the county treasury, are included, just as if all the income of such board was paid into the county treasury. Receipts to the credit of such boards or funds (not special funds, as hereafter described) should be included in the county "balance on hand."

If in your county any important functions usually included in county administration, such as streets, schools, police, fire, poor relief, etc., are in the hands of other departments, that fact should be noted on page 8 (of printed schedule), and the character of the authority exercising such administration described.

The greatest care should be taken that the figures under all classes of receipts represent the money actually received by the county, and that they in no case represent transfers from one account to another. Thus, if \$100,000 is received from a franchise tax on street railways, of which \$50,000 is paid to a sinking fund and \$50,000 to a park board, and if of this latter \$50,000, \$40,000 is paid back to the county treasury to meet expenses incurred by said board, the transactions should be entered as: Received—from franchise, \$100,000; Expended—for sinking fund, \$50,000 (included in total amount paid to sinking funds, as per schedule); for parks \$40,000 (included in total expenditure for parks), supposing the whole \$40,000 has actually been paid out by the county treasurer; balance on hand, \$10,000 (included in total balance). No entry should be made of any receipt from or payment to park board.

IV. In cases where receipts of a class specified may fall under several departments (licenses, e. g., may be received by liquor license commissioners, the highway department, the police department, etc.) great care should be taken to collect all receipts of a given class under the specified heading. When, however, there is a conflict between two headings, as where receipts in the nature of licenses belong to the waterworks, the markets, or wharves, in the exercise of their proper functions, the preference should be given to the most specific heading. In the illustration used the receipt should be counted under waterworks, etc., and not under licenses. Where such a conflict exists it would be of great assistance to make a note of the character of the conflict and the amount involved.

V. By "Special Funds" are meant funds of which, by the conditions of their establishment, the county has only the administration, and which it can not turn to any other purpose than that to which they are devoted. These funds are frequently the result of bequests by outside parties, but might properly include police or firemen's pension funds established by the county, and other funds of a similar nature. The term, however, is not meant to include funds which exist not for the purpose of permanent accumulation, but merely as a convenient form of administration for certain classes of expenditure. The receipts of this latter class of funds should be counted in with the other county receipts, and balances on hand should be included in the general balance. Nor does the term "Special funds" include funds accumulated against debt incurred in any branch of the administration. Such funds, by whatever name called, are sinking funds, and should be treated as such.

VI. In the case of "Special funds," properly so called, payments by such funds to the county treasury should be included under county receipts, but the income from the funds themselves should be treated separately under the heading "Receipts under special headings," provided for that purpose. If such special funds exist, a statement is desired of their character, purpose, and amount, or a reference to some public document containing the necessary statistics.

VII. Whenever it is found impossible to divide receipts of any department in accordance with the schedule headings, give a statement in as close accordance as possible, and state in a note what is included in the figures given.

VIII. In the following queries on pages 7 and 8 (of printed schedule) the figures and letters in the first column refer to similar figures and letters in the columns of the foregoing schedule on pages 2-5 (of printed schedule). The figures in the second column indicate the page of the schedule on which the column can be found. The queries in the third column on pages 7 and 8 (of printed schedule) correspond with instructions inserted below the tabular forms on the page indicated in the second column.

# RY AND GROWTH OF THE UNITED STATES CENSUS.

include receipts properly belonging to the municipality. A separate  
oe sent to municipalities.

[Pages 7 and 8 of printed schedule.]

3	Queries.	Replies.
2	What were the receipts under "Special forms of Taxation?" Name such special forms, with years and amount for each year, in detail.	
2	State what licenses are included under "Other licenses." Give name, year, and amount for each year in detail.	
2	What franchises are included under "Other franchises?" Give name, year, and amount for each year in detail.	
2	What assessments are included under "Other assessments?" Give name, year, and amount for each year in detail.	
3	What enterprises are included under "Other enterprises?" Give name, if owned by county or state, if managed directly or let out to private corporations; the year, and amount of each year, in detail.	
3	What receipts from the state? Give name, year, and amount for each year in detail.	
3	What public institutions are included under "Other public institutions?" Give name, year, and amount for each year in detail.	
3	What receipts from the state are included under "Other purposes?" Give name, year, and amount for each year, in detail.	
3	What sources of income are included under "Other regular sources of income?" Give name, year, and amount for each year in detail.	
4	What payments from sinking fund are included under "Sinking fund?" Give purposes for which such payments were made, year, and amount for each year, in detail.	
4	State what proportion of receipts under "Special funds" came from city treasury, sinking funds, or other special funds. Give proportion, name of fund, year, and amount.	
4	What receipts are included under "Other commercial undertakings?" Give name of undertaking, year, and amount for each year, in detail.	
5	What is the character and purpose of buildings included under "Public buildings?" Give name, location, and uses.	

## SPECIAL SCHEDULE.—LOCAL FINANCE.

Report of the Receipts and Expenditures of the ....., of ....., County of .....,  
State of ....., from 1880 to 1890, inclusive.

## RECEIPTS.

Sources of revenue.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.
Balance on hand at beginning of year .....											
Taxes:											
Real .....											
Personal .....											
Poll and registry .....											
Licenses:											
Liquor .....											
Other .....											
Fees, fines, and forfeitures .....											
Interest, dividends, and rents .....											
Water rents .....											
From state:											
For schools .....											
For other purposes .....											
Sinking fund .....											
Loans:											
Bonded .....											
Temporary .....											
Miscellaneous .....											
Deficit at end of year .....											
Total .....											

## EXPENDITURES.

For what expended.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.
Deficit at beginning of year .....											
Roads and bridges .....											
Sewers, drains, and ditches .....											
Public buildings .....											
Sanitary purposes .....											
Fire department .....											
Police .....											
Public lighting .....											
Poor and insane, support and care of .....											
Other charitable institutions .....											
Penal institutions .....											
Judicial expenses .....											
Libraries .....											
Schools .....											
Water, use of .....											
Loans:											
Bonded .....											
Temporary .....											
Sinking fund .....											
Interest on debt (bonded and temporary), amount and rate ..											
Salaries .....											
Miscellaneous .....											
Balance on hand at end of year .....											
Total .....											

When does the fiscal year end?

Make any necessary explanations or remarks.

## 886 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## SPECIAL SCHEDULE.—LOCAL INDEBTEDNESS.

Report of the Indebtedness of the ..... of ....., County of ....., State of .....,  
from 1881 to 188 , inclusive.

## BONDED INDEBTEDNESS FROM 1881 TO 188 , INCLUSIVE.

Years of issue.	For what purpose issued.	Date of maturity.	Amount paid.	Amount outstand- ing.	Rate of interest.
(a)	(a)	(a)	(a)	(a)	(a)

## FLOATING INDEBTEDNESS FROM 1881 TO 188 , INCLUSIVE.

When in- curred.	Contracted for—	Composed of—	Date of maturity.	Amount outstand- ing.	Rate of interest.
(a)	(a)	(a)	(a)	(a)	(a)

## SINKING FUND AND OTHER RESOURCES FROM 1881 TO 188 , INCLUSIVE.

Amount of sinking fund.	Date when es- tablished.	Purpose for which established.	Composed of—		Other re- sources.
			Bonds.	Other items.	
(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

## Remarks.

[If any explanation is necessary in regard to certain items in the foregoing state-  
ments of bonded and floating debts and sinking fund and other resources,  
please insert such explanation below.]

## SPECIAL SCHEDULES.—MUNICIPAL FINANCE.

[The inquiries in the two special schedules relating to "County finance," with the exception of  
the substitution of the word "Municipal" in each case for "County," are common to the two special  
schedules for "Municipal finance," and are not here reproduced.]

## SPECIAL SCHEDULE.—COUNTIES.

Report of the Receipts and Expenditures of the County of ....., State of .....,  
for 1880 and 1890.

## RECEIPTS.

(Cents omitted.)

Character of receipts.	Amount received year ending— (Month and day:) .....	
	1880.	1890.
Ordinary receipts:		
Taxes for county purposes only and not received through the state .		
Fees, fines, costs, and penalties .....		
Licenses, liquor, for use of county only .....		
Licenses, other, for use of county only .....		
Sale of county property .....		
Income from school or other county funds or property .....		
Reimbursement for criminals, indigent insane, or poor .....		
Miscellaneous .....		
Total ordinary receipts .....		
Ordinary receipts:		
Taxes and other receipts for state .....		
Taxes and other receipts for minor divisions .....		
Loans, principal of .....		
Funds, principal of, and transfers .....		
From state for school purposes .....		
From state for other purposes .....		
Balance on hand at beginning of year .....		
Total gross receipts .....		

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 887

## EXPENDITURES.

(Cents omitted.)

Character of expenditures.	Amount expended year ending— (Month and day:) .....	
	1880.	1890.
Ordinary expenditures:		
Salaries, commissions, and fees of judicial and other officers .....		
Expenses of courts' inquiries and inquests other than salaries .....		
Maintenance of jails and other penal institutions .....		
Charitable or reformatory objects .....		
County schools (exclusive of school districts) .....		
Buildings, grounds, and improvements .....		
Interest on county debt .....		
Roads, ditches, and bridges .....		
Miscellaneous .....		
Total ordinary expenditures .....		
Extraordinary expenditures:		
Loans, payment of principal .....		
Funds, principal of, and transfers .....		
Turned over to state .....		
Turned over to minor divisions for schools .....		
Turned over to minor divisions for other purposes .....		
Balance on hand at end of year .....		
Total gross expenditures .....		

## SPECIAL SCHEDULE.—STATE INDEBTEDNESS.

Statement of the Interest-Bearing Debt of the State of ..... from 1880 to 1889, inclusive.

Line No. (a)	For what purpose issued.	Date of authorization act.	Issue price per 100.	Rate of interest.	When issued.	Date of maturity.	Amount issued.
Line No. (a)	For what purpose issued.	Amount outstanding ....., 1880.	Amount outstanding ....., 1881.	Amount outstanding ....., 1882.	Amount outstanding ....., 1883.	Amount outstanding ....., 1884.	
9	Total amount outstanding (b)						
10	Amount of sinking fund (b) .						
11	Debt, less sinking fund (b) ..						
Line No. (a)	For what purpose issued.	Amount outstanding ....., 1885.	Amount outstanding ....., 1886.	Amount outstanding ....., 1887.	Amount outstanding ....., 1888.	Amount outstanding ....., 1889.	Remarks.
9	Total amount outstanding (b)						
10	Amount of sinking fund (b) .						
11	Debt, less sinking fund (b) ..						

<sup>a</sup> Eight line numbers are printed in schedule with a blank line opposite each number.

<sup>b</sup> These designations apply only to the columns showing the "amount outstanding" each year from 1880 to 1889, inclusive.

## 888 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## SPECIAL SCHEDULE.—STATE INDEBTEDNESS.

Statement of the Receipts and Expenditures of the State of ..... from 1881 to 1889, inclusive.

## STATEMENT OF RECEIPTS OF THE STATE OF ..... FROM 1881 TO 1889, INCLUSIVE.

No.	Classification of receipts.	For year ending ....., 1881.	For year ending ....., 1882.	For year ending ....., 1883.	For year ending ....., 1884.
1	Taxes .....				
2	Railroads .....				
3	Banks .....				
4	Other companies and corporations.				
5	Liquor licenses .....				
6	Miscellaneous (a) .....				
7	Total .....				

No.	Classification of receipts.	For year ending ....., 1885.	For year ending ....., 1886.	For year ending ....., 1887.	For year ending ....., 1888.	For year ending ....., 1889.
1	Taxes .....					
2	Railroads .....					
3	Banks .....					
4	Other companies and corporations.					
5	Liquor licenses .....					
6	Miscellaneous (a) .....					
7	Total .....					

a Includes receipts from all other sources, except loans.

## STATEMENT OF EXPENDITURES OF THE STATE OF ..... FROM 1881 TO 1889, INCLUSIVE

No.	Classification of expenditures.	For year ending ....., 1881.	For year ending ....., 1882.	For year ending ....., 1883.	For year ending ....., 1884.
1	Ordinary expenses .....				
2	Charitable and reformatory .....				
3	Educational .....				
4	To towns or counties for schools ...				
5	Interest on debt .....				
6	Miscellaneous (b) .....				
7	Total .....				

No.	Classification of expenditures.	For year ending ....., 1885.	For year ending ....., 1886.	For year ending ....., 1887.	For year ending ....., 1888.	For year ending ....., 1889.
1	Ordinary expenses .....					
2	Charitable and reformatory .....					
3	Educational .....					
4	To towns or counties for schools ...					
5	Interest on debt .....					
6	Miscellaneous (b) .....					
7	Total .....					

b Includes all other payments, except for loans.

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 889

## SPECIAL SCHEDULE.—STATE RESOURCES.

Statement of the Resources Available and Unavailable of the State of ....., 1889.

### BUILDINGS COMPLETED OWNED BY THE STATE ....., 1889.

For what used.	Of what material built.	Where located.	When erected.	Cost of building and site.
(a)	(a)	(a)	(a)	(a)

a A page of blank lines is printed in schedule.

### BUILDINGS NOT COMPLETED OWNED BY THE STATE ....., 1889.

For what to be used.	Of what material.	Where located.	Erection commenced.	Amount expended.
(b)	(b)	(b)	(b)	(b)

b Several blank lines are printed in schedule.

### LANDS OWNED BY THE STATE ....., 1889.

Number of acres.	Where located.	How and for what purpose acquired.	Original cost.	Present market value.
(b)	(b)	(b)	(b)	(b)

b Several blank lines are printed in schedule.

### MISCELLANEOUS PROPERTY OWNED BY THE STATE ....., 1889.

Description of property.	When acquired.	Cost.	Present market value.
(b)	(b)	(b)	(b)

b Several blank lines are printed in schedule.

STOCKS, BONDS, NOTES, MORTGAGES, ETC., HELD BY THE STATE OR SOME OF ITS FUNDS ....., 1889.

Description of security.	Rate of interest.	Date of last interest payment.	Date acquired.	Face value.	Cost value.	Present market value.
(a)	(a)	(a)	(a)	(a)	(a)	(a)

a A page of blank lines is printed in schedule.

## 890 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

PUBLIC DEBT, CURRENCY, RECEIPTS, AND EXPENDITURES OF  
FOREIGN COUNTRIES.Statement concerning the Public Debt, Currency, Receipts, and Expenditures of  
(name of country), furnished by .....

## STATEMENT OF LOANS AND CURRENCY.

Date of authoriza- tion act.	Amount issued. (Current money.)	Rate of interest.	When issued.		Value in coin of 100 in current money.	For what purpose issued.
			From—	To—		
(a)	(a)	(a)	(a)	(a)	(a)	(a)

Date of authoriza- tion act.	Issue price per 100 in current money.	Date of maturity.	Amount outstanding.		Present market value of 100 in cur- rent money.	Remarks.
			(b)..... 1880. (Current money.)	(b)..... 1889. (Current money.)		
(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Several blank lines are printed in schedule.

b Date of end of fiscal year.

NOTE.—If any of the above loans are for use as a circulating medium, please state under "Remarks" for what purposes the same is legal tender, and what provision, if any, has been made for its redemption.

## STATEMENT OF RECEIPTS, EXPENDITURES, INTEREST CHARGE, ETC.

Year ending .....	Net receipts, except for loans. (Current money.)	Net expendi- tures, except for loans. (a) (Current money.)	Value in coin of 100 in current money.	Annual interest charge.	Cash or sinking fund on hand.	Remarks.
1880.....						
1881.....						
1882.....						
1883.....						
1884.....						
1885.....						
1886.....						
1887.....						
1888.....						
1889.....						

a Including interest on the public debt.

## SPECIAL SCHEDULE.—COUNTIES.

Report of the Valuation and Taxation of the County of ....., State of ....., for  
the year ending ....., 1890, with detailed statement of all minor divisions having  
a population of 1,000 or upward.

## VALUATION.

(Cents omitted.)

Serial No. (a).	Name of each minor division having a population of 1,000 or more.	Total equal- ized assessed valuation.	Equalized as- sessed valua- tion of real estate.	Equalized as- sessed valua- tion of personal property.	Estimated true valua- tion of real estate.
	Total of divisions having 1,000 or more population .....				
	Aggregate of divisions having a population of less than 1,000 .....				
	Total of county.....				

a Thirty-two serial numbers were printed in schedule with a blank line opposite each number.

## TAXATION.

(Cents omitted.)

Serial No. (a).	Name of each minor division having a population of 1,000 or more.	Total taxation.	Levy other than for schools and school districts.				Levy for schools.	Levy for school districts.
			State.	County.	Minor divisions, exclusive of school districts.	Total.		
	Total of divisions having 1,000 or more population .....							
	Aggregate of divisions having a population of less than 1,000 ....							
	Total of county.....							

a Thirty-two serial numbers are printed in schedule with a blank line opposite each number.

## ALASKA.

[A general report on the population and resources of Alaska was made in 1880, but no printed schedules were used. At the census of 1890, the schedules numbered 1 and 2 were similar in form to the general population schedule. The inquiries were printed at the side and the entries made in vertical columns, spaces being provided for 5 entries to each page in the schedule numbered 1, and for 4 entries to each page in the schedule numbered 2. The schedules numbered 3 to 7, inclusive, were designed to cover a separate return from the institution or individual to whom sent, and where the inquiries were tabular in form they are so reproduced. The schedules numbered 8 and 9 were identical with schedules numbered 3 and 12 under "Mines and Mining" and are not here reproduced.]

## CENSUS OF 1890.

## SCHEDULE No. 1.—POPULATION AND SOCIAL STATISTICS.

Special Agent's District No. ....

Town, village, etc.; Street and No.

Name of institution.

Enumerated by me on the ..... day of ....., 1890. ...., Special Agent.

[Inquiries lettered A to E and those numbered 1 to 25, inclusive, on the general population schedule are common to this schedule and are not here reproduced. Inquiries numbered 26 to 30, inclusive, on general population schedule were not asked on this schedule.]

Special Agent's District No. ....

## SCHEDULE No. 2.—INDIAN POPULATION AND SOCIAL STATISTICS.

Village; Location; House No.

Enumerated by me on the ..... day of ....., 1890. ...., Special Agent.

A.—Number of families in dwelling house.

B.—Number of persons in dwelling house.

C.—Families numbered in the order of visitation.

D.—Number of persons in this family.

## INQUIRIES.

1. Name in full.
2. Tribe and clan.
3. Relationship to head of family.
4. Sex.
5. Age at nearest birthday. If under 1 year, give age in months.
6. Whether single, married, or widowed.
7. Whether married during the census year (June 1, 1889, to May 31, 1890).
8. Mother of how many children, and number of these children living.
9. Occupation.

## 892 HISTORY AND GROWTH OF THE UNITED STATES CENSUS

10. Attendance at school (in months) during the census year (June 1, 1889, to May 31, 1890).
11. Able to read.
12. Able to write.
13. Able to speak English. If not, language or dialect spoken.
14. Whether suffering from acute or chronic disease, with name of disease.
15. Whether defective in mind, sight, hearing, or speech, or whether crippled, maimed, or deformed, with name and cause of defect.

### SCHEDULE No. 3.—SCHOOLS.

Special Agent's District No. ....

Collected by me on the ..... day of ....., 1890. ...., Special Agent.

1. Name of school.
2. Location.
3. State whether a public, private, or parochial school.
4. State whether a day or boarding school.
5. Number of teachers:
  - Male.
  - Female.
6. Aggregate salaries of teachers during the census year:
  - Male.
  - Female.
7. Cost of school building.
8. Rent of school building.
9. Number of pupils at school in census year:
  - White:
    - Male.
    - Female.
  - (a) Creole:
    - Male.
    - Female.
  - (b) Native:
    - Male.
    - Female.
10. Average daily attendance of pupils during census year.
11. Cost of maintenance per pupil.
12. Number of days school was taught during census year.
13. How supported.

### SCHEDULE No. 4.—CHURCHES.

Special Agent's District No. ....

Collected by me on the ..... day of ....., 1890. ...., Special Agent.

1. Name of church.
2. Location.
3. Denomination.
4. Number of members or communicants:
  - White; creole (a); native (c).
5. Value of buildings.
6. Aggregate salaries of pastor and assistants during census year.
7. How supported.

### SCHEDULE No. 5.—SMALL FISHING WITH LESS THAN \$100 CAPITAL.

Special Agent's District No. ....

Collected by me on the ..... day of ....., 1890. ...., Special Agent.

1. Village or settlement.
2. Location.

---

*a* Descendants from intermarriages of Russians and natives.

*b* Indicate whether natives are Thlinkets, Hydats, Tsimpshians, Aleuts, Eskimo, or Athabaskans.

*c* Specify tribe.

3. Number of men engaged in fishing as a business not less than seven days in each year:  
White; creole (a); native.
4. Kind of fish taken.
5. Apparatus used.
6. Manner in which the catch was disposed of.
7. Total catch of fish taken in—  
1889, pounds; 1890, pounds.
8. Total catch of baleen taken in—  
1889, pounds; 1890, pounds.
9. Value of catch in—  
1889; 1890.
- Remarks.

SCHEDULE No. 6.—CANNERIES AND DEEP-SEA FISHERIES.

Special Agent's District No. ....

Collected by me on the ..... day of ....., 1890. ...., Special Agent.

1. Name of firm.
2. Location.
3. When established.
4. Nature of product—canned, salted, smoked, dried, oil, or fertilizer.
5. Cost of building.
6. Cost of permanent working plant.  
Cost of annual working plant.
7. Number of days men were employed in packing.
8. Number of days men were employed in fishing.
9. Number of men employed in packing:  
White; Chinese.
10. Wages of men or terms of contract.
11. Number of men employed in fishing:  
White; creole (a); native.
12. Wages of men or terms of contract.
13. Apparatus used in fishing:  
Value of same.
14. Number of vessels employed, owned, or chartered  
Class of same.
15. Value or charter price.
16. Number of men employed on vessels:  
Time employed.  
Wages of same.
17. Annual pack:

Year.	Salmon.				Cod.		Halibut.	
	Canned.		Smoked. (Cases.)	Salted.				
	1-pound cans. (Cases.)	2-pound cans. (Cases.)		Barrels.	Half-barrels.	Pickled. (Number.)		Tongues. (Barrels.)
1889....								
1890....								

Year.	Herring.			Oolican.			Aggregate value.	
	Salted. (Barrels.)	Oil. (Gallons.)	Fertilizer. (Pounds.)	Smoked. (Cases.)	Salted. (Barrels.)	Oil. (Gallons.)		
	1889....							Dollars.
1890....								

a Descendants from intermarriages of Russians and natives.

## CENSUS OF 1880.

## SCHEDULE No. 1.—POPULATION.

Enumerator's Sheet, No. ....

District No. ....

People of the ..... Tribe belonging to ..... Reservation, ..... Agency, enumerated by me on the ..... day of ....., 188.... .., Enumerator.

Post-office .....

NOTE.—The census year begins October 1, 1879, and ends September 30, 1880. All persons will be included in the enumeration who were living on the 1st day of October, 1880. No others will. Children born since October 1, 1880, will be omitted. Members of families who have died since October 1, 1880, will be included. The use of this sheet will be confined to the report of one family, in one dwelling, viz, house, set of rooms in pueblo, lodge, etc. The number of the dwelling within reported upon, in the order of the enumerator's visit, is .....

If several families are living in the same house, etc., each will be numbered in the order of visitation.

The number of the family reported upon in this sheet, is .....

The location of the dwelling, by legal or natural subdivision of the reservation is as follows: .....

Its description. If house, indicate by [H], and state whether of brick, stone, adobe, frame, or log; if pueblo, indicate by [P], and state whether of stone or adobe; if lodge, indicate by [L], and state whether of cloth, skin, slabs, poles, brush, bark, tule, stone, earth, etc. ....

The name of each person whose place of abode on the 1st day of October, 1880, was in this family.

1. Indian name.
2. English translation of Indian name.
3. English, Spanish, French, or other name habitually used.
- Relationship:
4. Relationship of each person to the head of this family or household, whether wife, husband, son, daughter, brother, servant or other.
- Civil conditions:
5. Is this person single?
6. Is this person married?
7. Is this person widowed or divorced?
8. Is this person a chief? (See note E).
9. Is this person a war chief?
- Personal description:
10. If this person is of full-blood of this tribe, enter "/." For mixture with another tribe, enter name of latter. For mixture with white, enter "W.;" with black, "B.;" with mulatto "Mu."
11. If this is a white person adopted into the tribe, enter "W. A.;" if a negro or mulatto, enter "B. A."
12. If this person has been for any time habitually on the reservation, state the time in years or fractions.
13. If this person wears citizen's dress, state the time in years or fractions since he or she has habitually so worn it.
14. If other than native language is spoken by this person, enter for English, "E.;" Spanish, "S.;" French, "F.," etc.
15. Sex: Male, "M.;" female, "F."
16. Age at last birthday prior to October 1, 1880. If under one year give months in fractions, thus:  $\frac{1}{2}$ .
17. If born within the census year give the month.
- Occupation:
18. Occupation or trade of this person.
- Health:
19. Is this person (on the day of the enumerator's visit) sick or temporarily disabled, so as to be unable to attend to ordinary business or duties? If so, what is the sickness or disability?
20. Has this person been vaccinated?
21. Maimed, crippled, bedridden, or otherwise disabled.
22. Blind.
23. Deaf and dumb.
24. Idiotic.
25. Insane.

## Education:

- 26. Attended school within census year.
- 27. Can not read.
- 28. Can not write.

## Personal property:

- 29. Number horses owned by this person.
- 30. Number cattle owned .....
- 31. Number sheep owned .....
- 32. Number swine owned .....
- 33. Number dogs owned .....

## Firearms:

- Number:
- 34. Number owned.
- Kind:
- 35. Enter shotgun, "S.;" rifle, "R.;" breech-loading rifle, "B.;" pistol, "P."

## Land occupied:

- 36. Number acres land cultivated by this person.
- 37. The length of time in years or fractions this person has been cultivating land.
- 38. Number acres of land occupied for cultivation and pasturage.

## Land in severalty:

- 39. Number acres this person holds by patent.
- 40. Number acres this person holds by allotment without patent.
- 41. Number acres this person holds by tribal regulation.

## Sources of subsistence:

- 42. If this person is self-supporting, state the time, in years or fractions he or she has been self-supporting.
- 43. Supported by family, or fraction.
- 44. Wholly or partly supported from civilized industries, or fraction.
- 45. Wholly or partly supported by Government, or fraction.
- 46. Wholly or partly supported by hunting, or fraction.
- 47. Wholly or partly supported by fishing, or fraction.
- 48. Wholly or partly supported by natural products of the soil, as roots, berries, etc., or fraction.

NOTE A.—Question 1. The spelling of the Indian name will be according to the alphabet provided in the "Introduction to the study of Indian languages," furnished to the enumerator.

NOTE B.—Question 4. The head of a family will be first entered, on line 1. Frequently the head of a family is a woman.

NOTE C.—The mark "/" is to be used as an affirmative answer in every column where it is appropriate, as 5, 6, 7, 9, 20, 21, etc. In column 7, the words "widowed or divorced" will be applied to male as well as female, and will be used where the person has been married and is now living without husband or wife. In case of divorced persons the letter "D" is to be used. Marriage and divorce will be entered in accordance with Indian customs and not the laws of civilization.

NOTE D.—Questions 12, 13, 16, and 29 to 38, inclusive. In many cases the numbers and quantities called for can not be accurately determined. In such cases, the enumerator should make careful estimates. Estimates should be inclosed in brackets, thus: [ ].

NOTE E.—Question 8. This refers to the civil government of the tribe. If the chief is such by tribal regulation and of the first rank, enter "1;" if of the second, "2;" if of the third, "3;" if by appointment or election through action of the United States, enter "A" or "E."

NOTE F.—Question 15. If the month can not be ascertained, enter the season, as spring, summer, autumn, etc.

NOTE G.—Question 18. The following list of occupations will be used, when applicable, for making entries here, viz, farmer, miller, carpenter, blacksmith, laborer, cooper, hunter or trapper, fisherman, basket maker, miner, wood chopper, lumberman, weaver, herder, ferryman, teamster, interpreter, United States military service, Indian police, medicine man, pipe maker, arrow maker, etc. Special attention is to be directed to reporting "medicine man," as it is the only occupation among Indians resembling a profession in civilization. No entries will be made in this column, or in those numbered 27 to 47 inclusive, respecting children under ten years of age.

NOTE H.—Question 20. The fact of vaccination must be ascertained by the enumerator by actual observation of the scar left by the operation.

NOTE I.—Questions 43 to 48 inclusive. If the entry in these columns is affirmative, the support is wholly from the source indicated. When fractions are used, their sums from the several columns relating to each individual should be unity.

## SCHEDULE No. 2.—VITAL STATISTICS.

Enumerator's Sheet No. ....

District No. ....

Persons of the ..... Tribe belonging to ..... Reservation, ..... Agency, who died during the year ending September 30, 1880, enumerated by me on the ..... day of ....., 188.... .., Enumerator.

Post-office .....

## RECORD OF DEATHS FOR THE YEAR ENDING SEPTEMBER 30, 1880.

1. The name habitually used by person deceased.  
(The spelling of Indian names will be according to the alphabet in the "Introduction to the study of the Indian languages," furnished to the enumerator.)  
Personal description:
  2. Age at last birthday. (If under 1 year, give months in fractions, thus:  $\frac{1}{2}$ ; if under 1 month, give days in fractions, thus:  $\frac{3}{5}$ .)
  3. Sex: Male, "M."; female, "F."
  4. If this person was of full blood of this tribe, enter "/." For mixture with another tribe, enter name of latter. For mixture with white, enter "W."; with black, "B."; with mulatto, "Mu." For white adopted, "W. A."; for black adopted, "B. A."
  - Civil condition:
  5. Single.
  6. Married.
  7. Date of death. (The month in which the person died. If the month can not be ascertained, give season, as spring, summer, autumn, etc.)
  8. Medical attendance. (If deceased was attended by a physician, enter "P."; if by Indian medicine man only, enter "M."; if by neither, "O."; if by both, "B.")  
Disease or cause of death:
  9. As stated by the head of the family or medicine man in the Indian language.  
(The spelling of the words will be according to the alphabet in the "Introduction to the study of the Indian languages," furnished to the enumerator.)
  10. English translation of the word or words in the foregoing column.
  11. What the disease, etc., is considered to have been by the enumerator, from the best information attainable, whether a physician attended or not.
- Remarks.

## INSTRUCTIONS.

The important point in this schedule is the question in column 11, under "Disease or cause of death," and especial pains must be taken to make the answer full and exact. To this end attention is called to the following points:

If the case was seen by a physician, give the cause or causes of death as stated by the physician.

If this be impossible, or if the case was not seen by a physician, give the cause as exactly as possible, being especially careful to note all cases of death from any of the causes given in the appended list.

Give the primary disease in all cases, and where the immediate cause of death is a complication or consequence of the primary disease, enter that also. For instance, enter all cases of death resulting either immediately or remotely from scarlet fever, smallpox, etc., under the names of those diseases, but add also dropsy, inflammation of the lungs, etc., if these occurred as complications more immediately causing death. Especial inquiry should be made for cases of stillbirths and induced abortion.

Deaths resulting in any way from syphilis or any venereal disease should be carefully noted, it being of special interest to ascertain the prevalence of venereal diseases among the Indians.

In cases of voluntary or involuntary sacrifice the mode of death should be noted. The mode of violent death should be particularly noted, whether from gunshot, spear, arrow, knife, tomahawk, etc.

Death from personal mutilation should be specified. In cases of hydrophobia, distinguish between the disease as produced by different animals, as skunk, wolf, etc.

A space is left at the bottom of each page of this schedule for remarks. In this should be described any particular malady or unusual disease which has prevailed in

the agency or reservation. In case of an unusual number of deaths by violence or accident, an explanation should be given in the space for remarks.

The following is a list of the causes of death concerning which among Indians it is especially desired to obtain a complete report. They are arranged in alphabetical order and are not intended as a nomenclature:

Abortion; abscess; alcoholism; aneurism (location); apoplexy; bowels, inflammation of; brain, inflammation of; cancer (location); childbirth and its consequences; cholera infantum; cholera morbus; consumption; convulsions; diarrhea, acute; diarrhea, chronic; diphtheria; dropsy; drowning; dysentery, acute; epilepsy; fever, malarial; fever, typhoid; fever, mountain; fever, scarlet; gangrene; heart, disease of; homicide (including involuntary sacrifice); hydrophobia; insects, bite of; lungs, inflammation of; malignant pustule or carbuncle; measles; rheumatism; scurvy; serpents, bite of; smallpox; starvation; suicide (including voluntary sacrifice); syphilis; tumors (location); tetanus; urine, retention of; wounds (including injuries from animals, contusions, etc.).

Upon this schedule should be carefully returned—

1. Every death which has occurred in the above-mentioned tribe of people, belonging to the above-mentioned reservation and agency, during the said year, whether the deceased was or was not at death a member of any family which lived October 1, 1880, in the agency or reservation.

2. Every death which has occurred outside of the said reservation during the said year, the deceased being at date of death a member of a family which lived, October 1, 1880, in the reservation or belonging to the agency.

The enumerator should make these entries upon this schedule with great care, seeking every source of information. When a positive statement is impossible, as when an age can only be estimated, the entry may be inclosed in parentheses, thus: Age (25), meaning that the best estimate of the age that can be given is 25 years.

Remarks.

#### SCHEDULE No. 3.—INDUSTRIES.

Statistics of Industries among the people of the ..... Tribe belonging to .....

Reservation, ..... Agency, during the twelve months beginning October 1, 1879,

and ending September 30, 1880, as recorded by me on the ..... day of .....,

188—. ...., Enumerator.

Post-office. ....

#### INDUSTRIAL PURSUITS.

Persons engaged in each occupation.	Farmers.	Millers.	Carpenters.	Blacksmiths.	Laborers.	Coopers.	Hunters or trappers.	
Full-blood Indians.....								
Mixed-blood Indians.....								
Whites adopted into tribe.....								
Negroes adopted into tribe.....								
Total .....								
Persons engaged in each occupation.	Fishermen.	Basket makers.	Miners.	Wood choppers.	Lumbermen.	Weavers.	Herders.	
Full-blood Indians.....								
Mixed-blood Indians.....								
Whites adopted into tribe.....								
Negroes adopted into tribe.....								
Total .....								
Persons engaged in each occupation.	Ferry-men.	Teamsters.	Interpreters.	U. S. military service.	Indian police service.	Medicine-man.	Pipe makers.	Arrow makers.
Full-blood Indians.....								
Mixed-blood Indians.....								
Whites adopted into tribe.....								
Negroes adopted into tribe.....								
Total .....								



# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 901

## NATURAL PRODUCTS UTILIZED.

	Fish.		Game.						Fruits and berries.	
	Pounds.	Value.	Buffalo.		Deer and smaller animals.		Birds.		Bush-els.	Value.
			No.	Value.	No.	Value.	No.	Value.		
Quantity consumed										
Quantity sold or bartered										
[5 blank lines.]										
Total quantity										

	Nuts.		Roots.		Wild rice.		Maple sugar.		Wild hay.	
	Bush-els.	Value.	Bush-els.	Value.	Pounds.	Value.	Pounds.	Value.	Tons.	Value.
Quantity consumed										
Quantity sold or bartered										
[5 blank lines.]										
Total quantity produced										

## SCHEDULE No. 4.—EDUCATION.

Enumerator's Sheet No. ....

District No. ....

Statistics of Education among the people of the ..... Tribe belonging to .....

Reservation, ..... Agency, during the twelve months beginning October 1, 1879,

and ending September 30, 1880, as recorded by me on the ..... day of .....

188 . . . . ., Enumerator.

Post-office .....

	Number of persons in this tribe and reservation between 5 and 20 years.		Number enrolled in schools during year.		Age of pupils.			
	Male.	Female.	Male.	Female.	Number below 5 years.		Number between 5 and 15 years.	
					Male.	Female.	Male.	Female.
Full bloods .....								
Mixed bloods .....								
Total .....								

	Age of pupils.				Average daily attendance.		Number who can read English.	
	Number between 15 and 20 years.		Number above 20 years.		Male.	Female.	Male.	Female.
	Male.	Female.	Male.	Female.				
Full bloods .....								
Mixed bloods .....								
Total .....								

## CENSUS OF 1890.

## GENERAL SCHEDULE.

[In the following schedule agents who are to enumerate the Indians will be held to a strict compliance with instructions herein, and every question, when possible, must be answered. Use black ink in answering questions. If the blank space in the schedule following a question is not sufficient, write the answer on a separate sheet of paper and attach it to the schedule, referring both to the number and form of question. Write on one side of the paper only. Where an agency embraces several reservations or tribes (as many do), a schedule must be made and filled up for each tribe. The questions relating to the agency will be made on one schedule. Where there is but one tribe in the agency, it may be done upon the same schedule. In enumerating Indians belonging to agencies, reservations, or tribes, enumerators will enter those temporarily absent from any cause; but where Indians have voluntarily abandoned their tribes or reservations the general census enumerators have been instructed to enroll them, and special return of such will be made to this office by the supervisor of census for the district in which they live. Special agents for Indians are not to enumerate such.]

..... Indian Agency.

State or Territory of ..... , June 30, 1890.

[Statistics must be given for each tribe separately.]

1. Name of agent.
2. Name of agency.
3. Names of Indian tribes at said agency, if more than one.
4. Number and kind of agency buildings and value.
5. Value of furniture.
6. Number, names, duties, and compensation of persons employed at agency or for the several tribes.
7. Horses, mules, oxen, cattle, sheep, swine, and domestic fowls, farming implements, tools and machinery—number and value belonging to agency.
8. Total population of agency—by tribes.
9. Statistics of ..... tribe at said agency.
10. Total population of tribe, and what Indian language is spoken.
11. Number of above who are mixed bloods, and what tribe; names, where possible.
12. Total Indian and mixed-blood population:  
Males; females.
13. Occupations.
14. Age, where possible.
15. Children under 1 year of age:  
Males; females.
16. Married or single.
17. Polygamists, and number of wives.
18. Number of Indians who wear citizen's dress wholly.
19. Number of Indians who wear citizen's dress in part.
20. Number of Indians over 20 years old who can read.
21. Number of Indians under 20 who can read.
22. Number of Indians under 20 who can write English.
23. Number of Indians who can use English enough for ordinary intercourse.
24. Number of Indians who can not speak English.
25. Number of Indian children of school age.
26. Number of Indian children for whom school accommodations are provided.
27. Number of schoolhouses.
28. By whom owned and value.
29. Number and kind of dwelling houses owned by Indians.
30. Number and kind of dwelling houses built for Indians by the Government, and cost of same.
31. Number of dwelling houses occupied by Indians. (a)
32. Number of Indian apprentices who have been learning trades during the year, and trade.

---

a Huts, brush houses, or mud houses are not to be included under this head.

904 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

33. What proportion of the subsistence of your Indians is obtained—  
By labor of Indians for themselves or others in civilized pursuits.  
By fishing, hunting, root gathering, etc.  
By issue of Government rations.
34. Number of missionaries (not reported under head of teachers on school statistics) and denominations to which they belong:  
Males; females.
35. Number of Indians who are church members (communicants), and denomination.
36. Number of church buildings, and value of same.
37. What contributions have been made and expended during the year, and by what religious societies, or other parties, and for what purposes—educational, religious, or other purpose?
38. Is your tribe increasing or decreasing? Give figures for several years.
39. Number of negroes, if any, with said tribe, or mulattoes, quadroons or octoroons.
40. State number of Indians taxed, if any.
41. Give number and names of Indians who were Union or Confederate soldiers, sailors, or marines in the war of the rebellion. Give organization and length of service.
42. Give number of soldiers' widows, as above, if any; husbands' names and service.
43. Number of Indians who have received medical treatment during the year, and nature of diseases. Give this in full. (a)
44. Give number of those suffering from acute or chronic diseases, with name of disease and length of time afflicted.
45. Give number and age of those defective in mind, sight, hearing, or speech, or whether crippled, maimed, or deformed, with name of defect.
46. Number of births during years 1889–90.
47. Number of deaths from all causes during years 1889–90. State age and causes, or diseases.
48. Give number of children under 1 year of age.
49. Number of Indians, including women and children, killed during the year:  
By Indians of the same tribe.  
By hostile Indians.  
By United States soldiers.  
By citizens.
50. Number of white persons killed by Indians:  
Males; females.
51. Number of Indian criminals punished during the year:  
By courts of Indian offenses.  
By other methods, such as civil, military, or tribal authority. (b)
52. Number and kind of crimes against Indians committed by whites during the year. (c)
53. Number of whites who have been punished for above crimes.
54. Number of whisky sellers prosecuted, and kind and extent of punishment of each.
55. Number of whites unlawfully on reservation.
56. Occupation.
57. Area of land occupied by them.
58. Quality of said land.
59. Number of acres in reservation.
60. Number of acres of reservation tillable. Is irrigation used, and what part, if any, is arable?
61. How many acres are fit only for grazing?
62. Number of acres cultivated during the year.  
1. By Government. 2. By Indians.
63. Number of acres broken during the year.  
1. By Government. 2. By Indians.
64. Number of acres under fence.
65. Rods of fencing made during the year.
66. Gain, if any.
67. Number of allotments made during the year.
68. Whole number of allotments made on reservation to date—acreage, and to which sex.
69. Number of families actually living upon and cultivating lands allotted in severalty.
70. Number of other Indian families engaged in agriculture or other civilized pursuits.

*a* This means number of Indians treated, not number of cases.

*b* State method.

*c* Including cases reported in reply to question 54.

## 71. Produce raised.

	By Govern- ment. (a)	Value.	By Indians.	Value.
Bushels of wheat .....				
Bushels of oats .....				
Bushels of barley and rye .....				
Bushels of corn .....				
Bushels of potatoes .....				
Bushels of turnips .....				
Bushels of onions .....				
Bushels of beans .....				
Bushels of other vegetables .....				
Number of melons .....				
Number of pumpkins .....				
Tons of hay cut .....				

(a) Including crops raised by schools.

72. Pounds of butter made.  
 73. Feet of lumber sawed.  
 74. Feet of timber marketed by Indians of this tribe.  
 75. Cords of wood cut.  
 76. Number of pounds of freight transported by Indians of this tribe with their own teams.  
 77. Amount earned by them by such freightage.  
 78. Value of products of Indian labor sold to Government.  
 79. Value of products of Indian labor sold otherwise.  
 80. Stock owned or used in tribe. (a)

	By Govern- ment.	Value.	By Indians.	Value.
Number of horses .....				
Number of mules .....				
Number of cattle .....				
Number of swine .....				
Number of sheep .....				
Number of domestic fowls (a) .....				

(a) Chickens, ducks, geese, or turkeys.

Statistics in regard to wool, cotton, blankets, baskets, fish, berries, sugar, or other important Indian manufactures or products, should be added to the above. When more space is required in the blank, use additional paper, and refer to the question by title or number. Give statistics of each tribe *separately*.

## SPECIAL SCHEDULE.—POPULATION AND SOCIAL STATISTICS: SIX NATIONS AND ATLANTIC STATES.

Enumeration of ..... Indians.

Enumerated by me on the ..... day ....., 1890. ...., Enumerator.

[The lettered details A to E and the inquiries numbered 1 to 30, inclusive, in special schedule for the Five Civilized Tribes are common to this special schedule and are not here reproduced.]

## SPECIAL SCHEDULE.—POPULATION AND SOCIAL STATISTICS: FIVE CIVILIZED TRIBES.

Enumeration of ..... District of ..... Nation, Indian Territory.

Enumerated by me on the ..... day ....., 1890. ...., Enumerator.

A.—Number of dwelling house in the order of visitation.

B.—Number of families in this dwelling house.

C.—Number of persons in this dwelling house.

D.—Number of family in the order of visitation.

E.—Number of persons in this family.

(a) If the Government stock is attached to the agency generally, do not estimate or give it under this clause in stating statistics of a tribe. Where a tribe gets its stock use, give it.

Able to speak English.

Able to read or write, or both.

If soldier or in navy in war of rebellion in Union or Confederate armies, give regiment, ship and service. If widow of soldier or sailor, give data as to husband's service.

#### SPECIAL SCHEDULE.—INDIANS LIVING AWAY FROM RESERVATIONS.

Supervisor's district No.; Enumeration district No.

Indians living off of and away from Reservations in ....., County of ....., State of ....., enumerated in June, 1890. ...., Enumerator.

Taken from schedule No. 1:

House No.

Family No.

Name.

Tribe.

Sex.

Age.

Occupation.

Whether taxed or not taxed.

#### SPECIAL SCHEDULE FOR SCHOOLS.

Use a separate sheet for each school among your Indians, whether conducted by Government or other parties, and whether boarding, day, or night school. White pupils must not be included in these statistics, but may be reported separately. The statistics must be made up from actual records.

1. Name of school.
2. Location. (*a*)
3. Boarding, day, or night.
4. How sustained.
5. Number of teachers:  
Male; female.
6. Number of other school employees:  
Male; female.
7. Number of teachers and other school employees:  
White; Indian.
8. Number of pupils who can be properly and healthfully accommodated in the school building. (*b*)
9. Number who have been crowded into it at any one time during the year. (*b*)
10. Whole number of scholars who have attended the school one month or more during the year: (*c*)  
Male; female.
11. Number under 6 years of age:  
Boys; girls.  
Number between 6 and 18 years of age:  
Boys; girls.  
Number over 18 years of age:  
Boys; girls.
12. Average age of pupils.
13. Number of months during which the school has been maintained.
14. Average attendance during that time.
15. Largest average attendance during any one month.
16. Name of the month.
17. Total cost of maintaining the school: (*d*)  
(*a*) Salaries of teachers and employees.  
(*b*) All other expenses. (*e*)

---

*a* Give distance and direction from agency.

*b* If a boarding school, state also the number of day pupils, if any, in addition to boarders. Give the day pupils separately.

*c* If a boarding school, give day pupils, if any, separate from the boarders.

*d* Total of (*a*) and (*b*) in question 17 should equal total of (*a*) and (*b*) in question 18.

*e* This must include clothing, subsistence, books, furniture, bedding, etc., all the items which are called for in the monthly statements of issues and expenditures at schools, except cost of repairs, which will be given separately in answer to question 23.

Spaces are provided on this special schedule for the entry of 50 names, or, more properly, terms of service. The spaces are numbered consecutively from 1 to 50, and cover the four pages comprised in each schedule. The inquiries made concerning each survivor or widow call for the repetition of the number of the house and family as returned on the general population schedule (No. 1), the name, rank, company, regiment, or vessel, date of enlistment, date of discharge, and length of service (in years, months, and days) on the upper half of each page, and the post-office address, disability incurred, and general remarks on the lower half of each page. The column headed "Remarks" is intended to be used to cover any points not included in the foregoing inquiries, and which are necessary to a complete statement of a person's term of service in any one organization.

In the case of persons having served in more than one organization, use as many spaces as may be necessary to cover their various terms of service. In the case of widows of deceased soldiers, sailors, or marines, make the entry of her name on the dotted line, as follows:

Mary J., widow of

Brown, James H.,

filling out the record of his service during the war, and giving under "Post-office address" the present address of his widow.

#### SUPPLEMENTAL SCHEDULE No. 9.—STATISTICS OF SOLDIERS' HOMES.

Supervisor's district No.; Enumeration district No.

Name of institution.

City or town; county; state.

Name and title of officer in charge.

[Inquiries numbered 1 to 22, inclusive, in general schedule No. 1, relating to population, are common to this supplemental schedule and are not here reproduced.]

##### Physical or mental defect:

- 23. Insane.
- 24. Idiotic.
- 25. Deaf-mute.
- 26. Blind.
- 27. Crippled, maimed, or deformed.
- 28. When admitted to this institution.
- 29. Whether able-bodied.

##### Cause of admission or retention:

- 30. Insanity.
- 31. Destitution.
- 32. Intemperance.
- 33. Old and infirm.
- 34. Bedridden.
- 35. Deformed.
- 36. Crippled.
- 37. Epileptic.
- 38. Paralytic.
- 39. Syphilitic.
- 40. Rheumatic.
- 41. Wounded.
- 42. Loss of limb.
- 43. Consumption.
- 44. Other chronic illness.

##### How supported:

- 45. At cost of United States.
- 46. At cost of state.
- 47. At cost of United States and state.

Whether this person has any relatives, as mentioned below, who are now inmates of this institution, with the number under each heading.

- 48. Father.
- 49. Brothers.
- 50. Sons.
- 51. From what state discharged. (a)

##### Arm of service: (a)

- 52. Cavalry.
- 53. Artillery.

---

<sup>a</sup> See special instructions concerning service in more than one organization.

## 910 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

- Arm of service—Continued.
54. Infantry.
  55. Sailor.
  56. Marine.
  57. -----
  - Organization: (a)
  58. Company.
  59. Regiment.
  - Length of service: (a)
  - Date of enlistment:
  60. Day.
  61. Month.
  62. Year.
  - Date of discharge:
  63. Day.
  64. Month.
  65. Year.
  - Rank: (a)
  66. Officer.
  67. Noncommissioned officer.
  68. Private.
  69. Number of the page and line on "Extra Service Sheet" containing the record for this person as to extra service.

### SPECIAL INSTRUCTIONS FOR FILLING SCHEDULE.

Please notice that in this special schedule the pages are numbered consecutively, and follow the order indicated, so that the schedule, when filled, may be in proper shape for binding in this office.

The instructions necessary to the proper filling of the columns numbered 1 to 27, inclusive, are contained in the book of instructions to enumerators (pages 15 to 33), a copy of which is inclosed. The following special instructions will serve as a guide in completing the information concerning inmates of soldiers' homes called for by the columns numbered 28 to 68, inclusive.

It will be seen at a glance that the greater part of these special inquiries are to be answered by the word "Yes" or "No." A diagonal mark (/) will be understood to mean yes; a horizontal dash (—) means no. Experience has shown that where enumerators leave a space blank the clerks who handle the schedules in this office are often uncertain whether this is because the answer is no, or because the correct answer is unknown. In all cases, therefore, where the answer is unknown, the space should be filled by two horizontal lines (=). If the question asked is inapplicable to the person enumerated, fill the blank by a cross-mark (X). No line of any column should be left blank.

Under the causes of admission or retention it may be necessary to make more than one affirmative mark. For instance, an inmate may be old, bedridden, or paralytic. A full account of the case would require a diagonal mark in each of the columns numbered 33, 34, and 38.

Under inquiries 51 to 68, where a person served in more than one organization, the particulars for the first period of service should be given on the schedule itself, and the particulars for the second and subsequent periods of service should be entered on the "extra service sheet," copies of which are inclosed. In all cases give the rank held at muster-out, the company and regiment, and the dates of enlistment and discharge as regards each organization.

In making the record of extra service, be careful to enter in the column on the extra service sheet marked "X" the "number of the page and line on the schedule for the person for whom this 'extra service' is reported," as 3—1, meaning page 3 and line 1 of this schedule; also enter in the column of this schedule numbered 69 the "number of the page and line on the 'extra service sheet' containing the record for this person as to extra service," as 1—10, meaning page 1 and line 10 of the extra service sheet.

---

*a* See special instructions concerning service in more than one organization.

## APPENDIX B.

### PUBLICATIONS OF THE UNITED STATES CENSUS.

#### FIRST CENSUS: 1790.

Title and subject-matter of report.	Style of report.	Number of pages.	When published.
Return of the whole number of persons within the several districts of the United States, etc. Printed by order of the House of Representatives. Philadelphia: Joseph Gales (a) .....	Octavo ...	56	1791

#### SECOND CENSUS: 1800.

Return of the whole number of persons within the several districts of the United States, etc. Printed by order of the House of Representatives. Washington (b) .....	Folio .....	c 74	1801
----------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------	------	------

#### THIRD CENSUS: 1810.

Aggregate amount of each description of persons within the United States of America and the territories thereof, agreeably to actual enumeration made according to law, in the year 1810. Washington .....	Folio .....	180	1811
A statement of the arts and manufactures of the United States of America, etc. (d) .....	Quarto ...	233	1813

#### FOURTH CENSUS: 1820.

Census for 1820. Published by authority of an act of Congress, under the direction of the Secretary of State. Washington: Gales & Seaton .....	Folio .....	160	1821
Digest of accounts of manufacturing establishments in the United States, and of their manufactures, made under direction of the Secretary of State in pursuance of a resolution of Congress of March 30, 1822. Washington: Gales & Seaton .....	Folio .....	128	1823

#### FIFTH CENSUS: 1830.

Fifth Census; or, enumeration of the inhabitants of the United States. To which is prefixed a schedule of the whole number of persons within the several districts of the United States, taken according to the acts of 1790, 1800, 1810, 1820. Published by authority of an act of Congress. Washington: Duff Green (c) ..	Folio .....	163	1832
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------	-----	------

a An edition was also printed in 1791 by Childs & Swayne, Philadelphia. A reprint, 52 pages, octavo, was published in 1802 by William Duane & Son, Washington. Also reprinted in 1793 by J. Phillips, George-Yard, Lombard street, London.

b A reprint, 88 pages, octavo, was published in 1802 by William Duane & Son, Washington.

c Unnumbered after 34.

d For complete title, see page 23.

e Reprinted the same year as corrected at the Department of State, by authority of an act of Congress, under the direction of the Secretary of State; a folio of 165 pages, printed by Duff Green; both reports bound in one volume.

## 913

TENTH CENSUS: 1880—Continued.

nd subject-matter of report.	Style of report.	Number of pages.	When published.
statistics of—Continued.			
ufacture, by Geo. William Bond. (26 pp.)			
products and salt, by William L. Rowland,			
ie direction of Henry Bower. (44 pp.)			
ufacture of, by Joseph D. Weeks. (124 pp.)			
tistics of .....	Quarto.....	1,149	1883
istics, and index to volume. (403 pp.)			
duction, by William H. Brewer. (184 pp.)			
ling processes, by Knight Neffel. (28 pp.)			
culture and curing of, by J. B. Killebrew.			
manufacture of, commercial distribution,			
ion, and prices, by J. R. Dodge. (70 pp.)			
luction (cattle, sheep, and swine, supplied			
to live stock on farms), by Clarence Gor-			
66 pp.)			
1, agencies of .....	Quarto.....	870	1883
ry matter, and index to volume. (18 pp.)			
roads, by Armin E. Shuman. (648 pp.)			
igation, by T. C. Purdy. (72 pp.)			
T. C. Purdy. (40 pp.)			
s and telephones, by Armin E. Shuman.			
tegraph service in foreign countries, by			
B. Lines. (54 pp.)			
n: Note on express companies. (4 pp.)			
tion, by Eugene W. Hilgard:			
Mississippi Valley and Southwestern states....	Quarto.....	924	1884
tern, Gulf, Atlantic, and Pacific states....	Quarto.....	848	1884
ication, and public indebtedness, by Robert			
(4 pp.)	Quarto.....	920	1884
id periodical press, by S. N. D. North.	Quarto.....	1,126	1884
ation, industries, and resources of, by Ivan			
8 pp.)			
Alaska, by Henry W. Elliott. (190 pp.)			
industry, by Henry Hall. (282 pp.)			
th America, exclusive of Mexico, and ports,			
by Chas. S. Sargent .....	Quarto.....	622	1884
(4 pp.)	Quarto.....	876	1884
l its products, production, technology, and			
F. Peckham. (328 pp.)			
cture of, by Joseph D. Weeks. (120 pp.)			
es of the United States, and statistics of			
ndustry for 1880. (424 pp.)			
vital statistics, by John S. Billings:			
1 portfolio of plates and diagrams .....	Quarto.....	832	1885
ls, statistics and technology of the, by S. F.	Quarto.....	962	1886
d G. F. Becker, under the direction of Clar-			
and regulations, United States, state, and	Quarto.....	558	1885
., compiled under the direction of Clar-			
tries (exclusive of precious metals), with	Quarto.....	716	1885
stigations into the iron resources of the			
d the cretaceous coals of the northwest,			
Pumpelly .....	Quarto.....	1,064	1886
prepared under the direction of W. P.			
.....	Quarto.....	874	1885
.....	Quarto.....	788	1887
s of cities, by George E. Waring, jr.:			
W England and Middle states .....	Quarto.....	924	1886
thern and Western states .....	Quarto.....	850	1887
(4 pp.)	Quarto.....	796	1886
ufacturing industries, by Joseph D. Weeks.			
l prices of necessities of life, by Joseph D.			
6 pp.)			
s in the United States, by Joseph D. Weeks.			
rkouts in 1880, by Joseph D. Weeks. (36 pp.)			
endent, and delinquent classes of the popu-			
l Frederick Howard Wines .....	Quarto.....	638	1888
(6 pp.)	Quarto.....	666	1888
ter power used in the manufacture of iron			
Herman Hollerith, under the direction of			
ridge. (18 pp.)			
and wood-working machinery, by F. R.			
der the direction of W. P. Trowbridge.			

## 914 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

## TENTH CENSUS: 1880—Continued.

Title and subject-matter of report.	Style of report.	Number of pages.	When published.
XXII. Steam pumps and pumping engines, by F. R. Hutton, under the direction of W. P. Trowbridge. (68 pp.)			
Wool and silk machinery, by Knight Neffel, under the direction of W. P. Trowbridge. (34 pp.)			
Engines and boilers, manufacture of, by Charles H. Fitch, under the direction of W. P. Trowbridge. (72 pp.)			
Marine engines and steam vessels in the United States merchant service, by Charles H. Fitch, under the direction of W. P. Trowbridge. (114 pp.)			
Ice industry, by Henry Hall. (50 pp.)			
Total number of pages .....		19,805	
Compendium of the tenth census:			
Part 1, revised edition (a) .....	Octavo.....	1,040	1885
Part 2, revised edition (a) .....	Octavo.....	858	1888

## ELEVENTH CENSUS: 1890.

[The volumes of the report of the Eleventh Census are not numbered; printed at the Government Printing Office, Washington.]

Population:			
Part I .....	Quarto .....	1,182	1896
Part II (b) .....	Quarto .....	1,150	1897
Insane, feeble-minded, deaf and dumb, and blind, by John S. Billings .....	Quarto .....	768	1896
Crime, pauperism, and benevolence, by Frederick H. Wines:			
Part I. Analysis .....	Quarto .....	420	1896
Part II. General tables .....	Quarto .....	1,048	1896
Vital and social statistics, by John S. Billings:			
Part I. Analysis and rate tables .....	Quarto .....	1,078	1896
Part II. Cities of 100,000 and upward .....	Quarto .....	1,192	1896
Part III. Statistics of deaths .....	Quarto .....	1,068	1894
Part IV. Statistics of deaths .....	Quarto .....	1,040	1896
Agriculture, irrigation, and fisheries: (c)			
Agriculture, statistics of .....		614	1896
Agriculture by irrigation, by F. H. Newell .....		292	1894
Fisheries, statistics of .....		44	1894
Manufacturing industries:			
Part I. Totals for states and territories .....	Quarto .....	1,008	1896
Part II. Statistics of cities .....	Quarto .....	872	1896
Part III. Selected industries .....	Quarto .....	734	1896
Mineral industries, by David T. Day .....	Quarto .....	874	1892
Alaska, population and resources of .....	Quarto .....	294	1898
Churches, statistics of, by Henry K. Carroll .....	Quarto .....	840	1894
Indians, taxed and not taxed, in the United States (except Alaska) .....	Quarto .....	692	1894
Insurance business, by Charles A. Jenney:			
Part I. Fire, marine, and inland insurance .....	Quarto .....	1,138	1894
Part II. Life insurance .....	Quarto .....	490	1896
Real estate mortgages, by George K. Holmes and John S. Lord .....	Quarto .....	956	1896
Farms and homes: Proprietorship and indebtedness, by George K. Holmes and John S. Lord .....	Quarto .....	658	1896
Transportation business, by Henry C. Adams:			
Part I. Transportation by land .....	Quarto .....	876	1896
Part II. Transportation by water .....	Quarto .....	546	1894
Wealth, debt, and taxation, by J. Kendrick Upton:			
Part I. Public debt .....	Quarto .....	902	1892
Part II. Valuation and taxation .....	Quarto .....	662	1896
Total number of pages .....		21,428	
Compendium of the eleventh census:			
Part I .....	Quarto .....	1,098	1892
Part II .....	Quarto .....	1,070	1894
Part III .....	Quarto .....	1,158	1897
Abstract of the eleventh census:			
First edition .....	Octavo .....	264	1894
Second edition, revised and enlarged .....	Octavo .....	312	1896
Statistical atlas, by Henry Gannett .....		70	1898

a The first editions of parts 1 and 2 were published in 1883.

b Including a report on education (150 pages), published as a monograph in 1893, but bound for convenience with Part II of the report on population.

c Bound in one volume.

NOTE.—In addition to several monographs which were published and later incorporated in the final report of the eleventh census the following monographs were published, but were not included in any volume of the final report:

- ✓ Vital statistics of the District of Columbia and Baltimore, 250 pages.
- ✓ Vital statistics of New York and Brooklyn, 538 pages.
- ✓ Vital statistics of Boston and Philadelphia, 278 pages.
- ✓ Social statistics of cities, 146 pages.

## APPENDIX D.

### SUMMARY OF UNITED STATES CENSUS LEGISLATION.

[This summary comprehends only the acts and resolves relating to the census that were so indexed. A detailed search of the statutes was not made, but it is believed that substantially all the legislation affecting the census is herein embodied.]

#### FIRST CENSUS: 1790.

Date of law.	Statutes at Large.		Subject-matter of law.	Amount appropriated.
	Volume.	Page.		
Mar. 1, 1790	1	101	Provisions for taking the first census.	
July 5, 1790	1	129	Provisions for taking the first census extended to Rhode Island and Providence Plantations.	
Mar. 2, 1791	1	197	Provisions for taking the first census extended to Vermont.	
Nov. 8, 1791	1	226	Time for completion of census of South Carolina extended to Mar. 1, 1792.	
Apr. 14, 1792	1	253	Apportionment of Congressional Representatives.	

#### SECOND CENSUS: 1800.

Feb. 28, 1800	2	11	Provisions for taking the second census.	
Apr. 12, 1800	2	37	Alterations in forms of oaths of marshals, secretaries, and assistants.	
Mar. 3, 1801	2	120	Appropriation for discharging the expense of the second enumeration .....	\$60,000.00
Jan. 14, 1802	2	128	Apportionment of Congressional Representatives.	
Apr. 6, 1802	2	152	Apportionment of compensation of the several marshals of Virginia, Maryland, and Pennsylvania, for taking the census, according to services rendered.	
May 1, 1802	2	188	Appropriation for defraying the expenses of the second enumeration .....	20,000.00

#### THIRD CENSUS: 1810.

Mar. 26, 1810	2	564	Provisions for taking the third census.	
Apr. 12, 1810	2	570	Enumeration required to close within 5 months from the first Monday in Aug., 1810.	
May 1, 1810	2	606	Alterations in forms of oaths of marshals, secretaries, and assistants.	
Feb. 20, 1811	2	647	Collection of manufacturing statistics directed.	
			Appropriation for discharging the expense of the third enumeration and that of taking an account of manufactures .....	\$150,000.00
Mar. 2, 1811	2	658	Time for completion and return of enumeration extended to the first Monday in July, 1811.	
Dec. 21, 1811	2	669	Apportionment of Congressional Representatives.	
Mar. 19, 1812	2	786	Digest of returns relating to manufactures authorized to be made by a person directed to be employed by the Secretary of the Treasury.	
May 16, 1812	2	734	Appropriation for expenses of making a digest of manufactures .....	2,000.00
			Appropriation for compensation of marshals and assistants for taking an account of manufactures .....	40,000.00

918 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

FOURTH CENSUS: 1820.

Date of law.	Statutes at Large.		Subject-matter of law.	Amount appropriated.
	Volume.	Page.		
Mar. 14, 1820	3	548	Provisions for taking the fourth census.	\$240,000.00
Apr. 11, 1820	3	560	Appropriation for defraying the expense of the fourth enumeration.	
Mar. 3, 1821	3	643	Time for completion and return of enumeration extended to Sept. 1, 1821.	
Mar. 7, 1822	3	651	Apportionment of Congressional Representatives.	
Feb. 4, 1822	3	719	Distribution of copies of returns of the fourth census.	
Mar. 30, 1822	3	719	Digest of returns relating to manufactures directed to be made by Secretary of State.	
Jan. 14, 1823	3	720	Apportionment of Congressional Representatives in Alabama.	
May 24, 1828	4	321	Distribution of returns of fourth census and of digest of manufactures.	

FIFTH CENSUS: 1830.

Mar. 2, 1829	4	344	Appropriation for discharging the expense of taking the fifth census.	\$350,000.00
Mar. 18, 1830	4	382	Appropriation for discharging the expense of taking the fifth census.	250,000.00
Mar. 23, 1830	4	383	Provisions for taking the fifth census.	2,000.00
			Appropriation for revision of former statements of population, and for printing and distributing abstracts thereof.	
Apr. 24, 1830	4	397	\$200,000 of sums appropriated for taking the census not being required, passed to surplus fund.	[-200,000.00]
Apr. 30, 1830	4	429	Transmission by mail regardless of weight of papers relating to the fifth census authorized.	
May 28, 1830	4	430	Clerks of courts directed to transmit to Department of State the returns of the first, second, third, and fourth censuses.	
Feb. 3, 1831	4	439	Time for completion and return of enumeration extended to Aug. 1, 1831.	
			Copies of returns and aggregate amounts filed by marshals with clerks of district and supreme courts not to be sent to Department of State, as directed by act of Mar. 23, 1830.	
			Errors in returns of marshals and assistants to be noted and printed.	
May 5, 1832	4	514	Assistant marshals who have not been paid, through delinquency of marshals, to be paid out of census appropriations.	
May 22, 1832	4	516	Apportionment of Congressional Representatives.	
July 3, 1832	4	606	Distribution of returns of the fifth census.	
July 13, 1832	4	607	Returns of the fifth census to be bound.	
July 14, 1832	4	608	Documents containing the fifth census to be transmitted by mail free of postage.	
June 19, 1834	4	744	Two copies of fifth census allowed each member of the Twenty-third Congress who was not a member of the Twenty-second Congress.	

SIXTH CENSUS: 1840.

Mar. 3, 1839	5	331	Provisions for taking the sixth census.	\$20,000.00
			Appropriation for carrying act into effect.	
Feb. 26, 1840	5	368	Further provisions for taking the sixth census.	740,000.00
May 8, 1840	5	378	Appropriation for payment of the expenses of the sixth census.	
Jan. 14, 1841	5	411	Time for completion and return of enumeration extended to June 1, 1841.	
			Construction of section 11 of act of Mar. 3, 1839, in regard to printing.	
			Extra compensation allowed the superintending clerk in charge of the sixth census and to the disbursing agent of the Department of State.	
Sept. 1, 1841	5	452	Time for completion and return of enumeration extended to Jan. 1, 1842.	
			20,000 copies of the compendium of the sixth census to be printed.	
			Sixth census documents to be bound.	
			Census of Montgomery County, Md., to be again taken.	
		467	Distribution of the returns of the sixth census.	
Apr. 14, 1842	5	583	Payment for printing compendium of the sixth census suspended until further order of Congress.	
Apr. 15, 1842	5	583	Distribution of the printed returns of the sixth census and other documents connected therewith.	
May 18, 1842	5	485	Appropriation for expenses of the sixth census, including printing, except printing of compendium.	110,000.00

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 919

## SIXTH CENSUS: 1840—Continued.

Date of law.	Statutes at Large.		Subject-matter of law.	Amount appropriated.
	Volume.	Page.		
June 25, 1842	5	491	Apportionment of Congressional Representatives.	
Aug. 26, 1842	5	528	Appropriation for distributing the aggregate returns of the sixth census.	\$8,000.00
Aug. 30, 1842	5	567	Allowances made by marshals to assistants in Kentucky to be examined by the circuit judge, and so much thereof as he approves to be paid.	
Feb. 4, 1843	6	882	Appropriation to pay an assistant marshal in Louisiana for balance due for services in taking the sixth census.	418.09
Feb. 24, 1843	5	648	Distribution of sixth census returns and compendium, and of previous censuses.	
Mar. 3, 1843	5	631	Appropriation for payment of expense of printing 30,000 copies of compendium of the sixth census.	24,774.46
			Appropriation to defray expense of distributing remaining numbers of census reports.	2,500.00
July 15, 1846	9	653	Appropriation to pay balance due for taking census of two precincts in Montgomery County, Md.	76.28

## SEVENTH CENSUS: 1850.

Mar. 3, 1849	9	395	Secretary of the Interior given supervision of the United States census.	
		402	Census board created to prepare for taking the seventh census.	
			Appropriation for preparing and printing forms and schedules.	\$10,000.00
May 23, 1850	9	428	Provisions for taking the seventh and subsequent censuses.	
			Number of Congressional Representatives fixed from and after Mar. 3, 1853, to be apportioned by the Secretary of the Interior.	
			Appropriation for carrying act into effect.	150,000.00
			Appropriation for transmitting blanks and other census matter through the mail, to be paid to the Post-Office Department.	12,000.00
Aug. 30, 1850	9	445	Compensation of marshals, agents, and assistants in California, Oregon, Utah, and New Mexico increased; also, as to manner of enumerating persons in said territory.	
			Compensation of eight cents per page allowed assistant marshals for making copies of original returns, as required by section 11.	
			Secretary of the Interior authorized to extend time for taking census in delayed districts to Jan. 1, 1851, and in California, Oregon, Utah, and New Mexico to such time as he may deem necessary.	
Sept. 30, 1850	9	541	Appropriation for discharging the expense of taking the seventh enumeration.	1,116,000.00
July 21, 1852	10	22	Appropriation for payment of clerks on extra duty in the census office.	10,500.00
July 30, 1852	10	25	Secretary of the Interior directed to forthwith proceed to apportion Congressional Representatives under the seventh census.	
			Reenumeration to be ordered in cases of loss, destruction, or improper taking of returns.	
Aug. 31, 1852	10	94	Appropriation for clerk hire, stationery, rent, fuel, and contingencies in completing the seventh census.	49,000.00
Dec. 23, 1852	10	260	Concerning the salary of the secretary of the census board after June 1, 1850.	
Jan. 7, 1853	10	261	Census returns of California required to be appended to the report in course of preparation by the census office.	
Mar. 3, 1853	10	181	Appropriation for completing the work of the seventh census and preparing the same for publication.	25,000.00
		263	Concerning the printing and binding of the abstract of the seventh census.	
Apr. 22, 1854	10	276	Salary of the Superintendent of the Census to be the same as that of the Assistant Secretary of the Treasury.	
May 31, 1854	10	293	Appropriation for printing the returns of the seventh census.	15,909.93
			Appropriation for paper used in printing.	27,106.68
Mar. 3, 1855	10	665	Appropriation for payment of salaries and other expenses of the census bureau until the completion of the mortality statistics.	5,000.00
Aug. 18, 1856	11	88	Appropriation for arranging and binding, for preservation of the seventh and prior censuses.	2,500.00
June 12, 1858	11	324	Appropriation for completing the digest of manufactures.	3,500.00

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 921

## NINTH CENSUS: 1870—Continued.

Date of law.	Statutes at Large.		Subject-matter of law.	Amount appropriated.
	Volume.	Page.		
June 9, 1870	16	380	Compensation of assistant marshals for taking the ninth census may be increased by the Secretary of the Interior. (Repealed by act of Mar. 3, 1871.)	
July 15, 1870	16	314	Appropriation for expenses to be incurred in taking the ninth census	\$1,000,000.00
Feb. 3, 1871	16	404	Division of Virginia into two judicial districts not to affect the completion of the ninth census of said state.	
Mar. 3, 1871	16	503	Appropriation for defraying the expenses of taking the ninth census.	1,250,000.00
		514	Compensation of assistant marshals for taking the ninth census may be increased by the Secretary of the Interior. Resolution of June 9, 1870 (16 Stat. L., 380), repealed.	
Apr. 20, 1871	17	8	Appropriation for payment of increased salaries in the census office	7,600.00
		9	Such part of appropriation by act of Mar. 3, 1871 (16 Stat. L., 503), as is necessary may be used during the current year.	
		12	Appropriation for increased compensation of assistant marshals.	350,000.00
Dec. 16, 1871	17	23	Appropriation for defraying expenses of taking the ninth census:	
			For payment of marshals and assistant and deputy marshals.	293,000.00
			For clerk hire and miscellaneous expenses	187,000.00
Feb. 2, 1872	17	28	Apportionment of Congressional Representatives.	
May 18, 1872	17	131	Appropriation for the expenses of the ninth census.	20,000.00
		132	Appropriation for payment of F. W. Clemmons for labor in disbursing ninth-census appropriations	800.00
June 9, 1872	17	339	Appropriation to reimburse marshals such sum as may be necessary. (Amount not specified.) The total amount paid under this appropriation was.	12,111.40
June 10, 1872	17	351	Appropriation to pay Charles W. Seaton for use of tallying machine	15,000.00
		368	Appropriation for preparing and printing maps to illustrate the quarto volumes of the ninth census.	25,000.00
June 8, 1873	17	405	Appropriation for expenses of the ninth census.	12,000.00
Mar. 3, 1873	17	536	Appropriation for preparing, engraving, and printing maps for the statistical atlas.	30,000.00
			Appropriation for compensation of Francis A. Walker for extra services and labor in completing the ninth census, while Commissioner of Indian Affairs.	1,500.00
June 23, 1874	18	208	Appropriation for printing and binding statistical atlas.	3,000.00
Mar. 2, 1875	18	524	Manuscript returns of the first and ninth censuses to be bound.	
June 20, 1878	20	226	\$4,090.69, unexpended balance of ninth-census appropriations, made available to pay adjusted accounts of the ninth census.	
			Appropriation for 4,000 additional copies of the statistical atlas	10,000.00
		232	Appropriation to pay for services as assistant marshals of specified persons in taking the ninth census.	96.24
June 20, 1879	21	52	Appropriation to pay adjusted accounts for services or expenses incurred in completing the ninth census	4,090.69

## TENTH CENSUS: 1880.

Mar. 3, 1879	20	473	Provisions for taking the tenth and subsequent censuses. Appropriation for printing and other preliminary expenses	\$250,000.00
June 21, 1879	21	28	Authorization to rent buildings for census purposes.	
Apr. 20, 1880	21	75	Amending and amplifying act of Mar. 3, 1879.	
		76	Appropriation for additional services of enumerators. Census of Alaska authorized.	125,000.00
June 16, 1880	21	275	Appropriation for enumeration and compilation of tenth census (including printing and engraving, \$125,000)	2,930,000.00
Mar. 3, 1881	21	451	Appropriation for engraving and printing	125,000.00
			Appropriation for completion of the tenth census, including compilation and publication, and for rent.	500,000.00
Jan. 28, 1882	22	2	Appropriation for completion of the work of the tenth census and for compensation of volunteers.	540,000.00
Feb. 20, 1882	22	4	To whom payment for services of volunteers may be made.	
Feb. 25, 1882	22	5	Apportionment of Congressional Representatives.	
Aug. 5, 1882	22	2650	Appropriation to pay certain specified persons for special services in connection with the census department	1,450.00

# HISTORY AND GROWTH OF THE UNITED STATES CENSUS. 923

## ELEVENTH CENSUS: 1890—Continued.

Date of law.	Statutes at Large.		Subject-matter of law.	Amount appropriated.
	Volume.	Page.		
May 21, 1890	26	116	Free transmission of census mail matter by registered mail authorized.	
June 18, 1890	26	161	Appropriation for salaries and necessary expenses for taking and compiling the results of the eleventh census	\$3,075,000.00
July 11, 1890	26	257	Appropriation for salary of census clerk in the office of the Secretary of the Interior	1,800.00
Aug. 14, 1890	26	313	Collection of facts from unincorporated express companies, the same as from incorporated ones required.	
Aug. 30, 1890	26	392	Appropriation for salaries and necessary expenses in taking and compiling the results of the eleventh census	1,400,000.00
			Appropriation for continuing the printing, engraving, and binding of the eleventh census	350,000.00
Feb. 7, 1891	26	735	Apportionment of Congressional Representatives.	
Mar. 3, 1891	26	888	Directions concerning the printing and distribution of eleventh census reports.	
			Appropriation for printing eleventh census reports	250,000.00
		937	Appropriation for salary of census clerk in the office of the Secretary of the Interior	1,800.00
		972	Appropriation for salaries and necessary expenses in taking and compiling the results of the eleventh census	1,000,000.00
Mar. 8, 1892	27	5	Appropriation for salaries and necessary expenses for continuing the work of compiling the results of the eleventh census	200,000.00
			Appropriation for the work of the division of farms, homes, and mortgages	50,000.00
May 13, 1892	27	36	Appropriation for salaries and necessary expenses for continuing the work of compiling the results of the eleventh census	100,000.00
July 6, 1892	27	86	Amending act of Mar. 1, 1889, by requiring information to be obtained in regard to all productive industries; penalty for refusal to answer authorized inquiries.	
July 16, 1892	27	212	Appropriation for salary of census clerk in the office of the Secretary of the Interior	1,800.00
July 28, 1892	27	295	Appropriation for salaries and necessary expenses for continuing the work of compiling the results of the eleventh census	560,000.00
			Appropriation for the work of the division of farms, homes, and mortgages	100,000.00
			Appropriation for printing the final volumes of reports of the eleventh census	250,000.00
Aug. 5, 1892	27	371	Appropriation of \$250,000 of March 3, 1891, made available for the fiscal year 1892-93.	
Feb. 23, 1893	27	473	Directions concerning the printing and distribution of eleventh census reports.	
Mar. 3, 1893	27	658	Appropriation for salaries and necessary expenses for continuing the work of compiling the results of the eleventh census	840,000.00
			Appropriation for salaries and necessary expenses for continuing the work of collecting and compiling statistics of farms, homes, and mortgages	180,000.00
			Census office abolished, to terminate Dec. 31, 1893; unpublished work and records to be transferred to the office of the Secretary of the Interior, under whose direction the work is to be completed; manner of application of unexpended balances of appropriations provided for.	
Oct. 3, 1893	28	3	Time for completion of the work of the eleventh census extended to June 30, 1894. Commissioner of Labor may be authorized and directed by the President of the United States to perform the duties of Superintendent of Census.	
Dec. 21, 1893	28	18	Appropriation for salaries, rent, and necessary expenses in continuing the work of compiling the results of the eleventh census	350,000.00
			Appropriation for maintenance of printing office in the census office	5,000.00
			Appropriation for payment of bills contracted for printing, engraving, and binding	1,500.00
Apr. 21, 1894	28	60	Preparation of abstract of the eleventh census directed; certain provision of Act of Mar. 1, 1889, repealed; time for completion of the work of the eleventh census extended to Mar. 4, 1895.	
July 31, 1894	28	206	Accounts relating to the census office to be examined by the Auditor for the Interior Department.	
Aug. 23, 1894	28	439	Disposition of unexpended balance of appropriation for completion of the work of the division of farms, homes, and mortgages; report on social statistics of cities to be published as a monograph; abstract of eleventh census to be printed instead of digest.	

924 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

ELEVENTH CENSUS: 1890—Continued.

Date of law.	Statutes at Large.		Subject-matter of law.	Amount appropriated.
	Volume.	Page.		
Dec. 24, 1894	28	596	Appropriation for salaries, rents, and necessary expenses for completing the work of compiling the results of the eleventh census.....	\$125,000.00
			Appropriation for printing, engraving, and binding the final reports of the eleventh census.....	175,000.00
Jan. 12, 1895	28	605	Printing office in the census office excepted from the requirement that Department printing offices shall be under the control of the Public Printer.	
		611	Distribution of eleventh census reports continued under existing law.	
Mar. 2, 1895	28	857	Census office abolished, to terminate Mar. 4, 1895; unfinished work to be completed in the office of the Secretary of the Interior; services of the Commissioner of Labor, in charge of the completion of the eleventh census, to be continued; use of unexpended balances for printing authorized.	
		858	Appropriation for salaries, rents, and necessary expenses of completing the work of compiling the results of the eleventh census.....	10,000.00
Feb. 26, 1896	29	24	Appropriation for salaries, rents, and necessary expenses in continuing the work of compiling the results of the eleventh census.....	15,000.00
Mar. 19, 1896	29	468	Commissioner of Labor directed to correspond and confer with census officers of other governments in order to secure uniformity in future censuses; also to submit a plan for a permanent census service.	
Mar. 28, 1896	29	167	Appropriation for employment of laborers in the work of distributing the reports of the eleventh census...	3,960.00
June 8, 1896	29	293	Appropriation for salaries, rents, and necessary expenses in continuing the work of compiling the results of the eleventh census.....	10,000.00
		294	Appropriation to continue printing, engraving, and binding the final volumes of the eleventh census...	250,000.00
			Appropriation for rents accrued in March and April, 1895.....	162.50
Feb. 19, 1897	29	566	Appropriation for employment of laborers in the work of distributing the reports of the eleventh census...	3,960.00
		567	Appropriation for salaries, rent, and necessary expenses incident to the proper care of the records of the eleventh and previous censuses.....	6,800.00
Mar. 15, 1898	30	304	Appropriation for employment of laborers in the work of distributing the reports of the eleventh census...	3,960.00
			Appropriation for salaries, rent, and necessary expenses incident to the proper care of records of the eleventh and previous censuses.....	6,800.00
July 7, 1898	30	672	Appropriation for payment of work connected with the Indian report of the eleventh census.....	600.00
			Appropriation for payment of certain special agents of the eleventh census.....	535.00
			Appropriation for expenses of the eleventh census....	136.92
			Appropriation for payment of amount due an enumerator.....	36.50
			Appropriation for payment of rent for June, 1898.....	166.66
			Appropriation for salary of clerk in charge of census records for June, 1898.....	148.30

## APPENDIX E.

### CENSUS ACTS: 1790, 1840, 1850, 1880, 1890, 1900.

[The first six censuses of the United States were taken under the act of March 1, 1790, with amendments and extensions, as shown by the acts of March 3, 1839, as amended by the act of February 26, 1840, under the provisions of which the sixth census, in 1840, was taken. The seventh, eighth, and ninth censuses were taken under the act of May 23, 1850, as amended by the act of August 30, 1850, with some modifications. The tenth census was taken under the act of March 3, 1879, as amended by the act of April 20, 1880, and the eleventh census under the act of March 1, 1889, as amended by the acts of January 23, 1890, February 22, 1890, April 3, 1890, May 21, 1890, August 14, 1890, and July 6, 1892, and the joint resolution of March 19, 1890. The twelfth census is to be taken in June, 1900, under the act of March 3, 1899.]

ACT APPROVED MARCH 1, 1790.

AN ACT providing for the enumeration of the inhabitants of the United States.

**SECTION 1.** *Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That the marshals of the several districts of the United States shall be, and they are hereby authorized and required to cause the number of the inhabitants within their respective districts to be taken; omitting in such enumeration Indians not taxed, and distinguishing free persons, including those bound to service for a term of years, from all others; distinguishing also the sexes and colours of free persons, and the free males of sixteen years and upwards from those under that age; for effecting which purpose the marshals shall have power to appoint as many assistants within their respective districts as to them shall appear necessary; assigning to each assistant a certain division of his district, which division shall consist of one or more counties, cities, towns, townships, hundreds or parishes, or of a territory plainly and distinctly bounded by water courses, mountains, or public roads. The marshals and their assistants shall respectively take an oath or affirmation, before some judge or justice of the peace, resident within their respective districts, previous to their entering on the discharge of the duties by this act required. The oath or affirmation of the marshals shall be, "I, A. B. marshal of the district of —, do solemnly swear (or affirm) that I will well and truly cause to be made, a just and perfect enumeration and description of all persons resident within my district, and return the same to the President of the United States, agreeably to the directions of an act of Congress, intitled 'An act providing for the enumeration of the inhabitants of the United States,' according to the best of my ability." The oath or affirmation of an assistant shall be, "I, A. B. do solemnly swear (or affirm) that I will make a just and perfect enumeration and description of all persons resident within the division assigned to me by the marshal of the district of — and make due return thereof to the said marshal, agreeably to the directions of an act of Congress, intitled 'An act providing for the enumeration of the inhabitants of the United States,' according to the best of my ability." The enumeration shall commence on the first Monday in August next, and shall close within nine calendar months thereafter. The several assistants shall, within the said nine months, transmit to the marshals by whom they shall be respectively appointed, accurate returns of all persons, except Indians not taxed, within their respective divisions, which returns shall be made in a schedule, distinguishing the several families by the names of their master, mistress, steward, overseer, or other principal person therein, in manner following, that is to say:

The number of persons within my division, consisting of —, appears in a schedule hereto annexed, subscribed by me this — day of —, 179—.

A B, assistant to the marshal of —

*Schedule of the whole number of persons within the division allotted to A B.*

Names of heads of families.	Free white males of 16 years and upwards, including heads of families.	Free white males under 16 years.	Free white females, including heads of families.	All other free persons.	Slaves.

containing the number of inhabitants within his division, to be set up at two of the most public places within the same, there to remain for the inspection of all concerned; for each of which copies the said assistant shall be entitled to receive two dollars, provided proof of a copy of the schedule having been so set up and suffered to remain, shall be transmitted to the marshal, with the return of the number of persons; and in case any assistant shall fail to make such proof to the marshal, he shall forfeit the compensation by this act allowed him.

Approved, March 1, 1790.

ACTS APPROVED MARCH 3, 1839, AND FEBRUARY 26, 1840.

AN ACT to provide for taking the sixth census or enumeration of the inhabitants of the United States. (a)

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That the marshals of the several districts of the United States, and of the District of Columbia, and of the territories of Wisconsin, Iowa, and of Florida, respectively, shall be, and are hereby, required, under the direction of the Secretary of the Department of State, and according to such instructions as he shall give, pursuant to this act, to cause the number of the inhabitants within their respective districts and territories (omitting, in such enumeration, Indians not taxed) to be taken according to the directions of the act. The said enumeration shall distinguish the sexes of all free white persons, and ages of the free white males and females, respectively, under five years of age; those of five and under ten years of age; those of ten years and under fifteen; those of fifteen and under twenty; those of twenty and under thirty; those of thirty and under forty; those of forty and under fifty; those of fifty and under sixty; those of sixty and under seventy; those of seventy and under eighty; those of eighty and under ninety; those of ninety and under one hundred; those of one hundred and upwards: and shall further distinguish the number of those free white persons included in such enumeration who are deaf and dumb, under the age of fourteen years; and those of the age of fourteen years and under twenty-five; and of the age of twenty-five and upwards; and shall further distinguish the number of those free white persons included in such enumeration who are blind: and also in like manner of those who are insane, or idiots, distinguishing further such of the insane and idiots as are a public charge. The said enumeration shall distinguish the sexes of all free colored persons, and of all other colored persons bound to service for life or for a term of years and the ages of such free and other colored persons, respectively, of each sex, under ten years of age; those of ten and under twenty-four; those of twenty-four and under thirty-six; those of thirty-six and under fifty-five; those of fifty-five and under one hundred; and those of one hundred and upwards: and shall further distinguish the number of those free colored and other colored persons included in the foregoing who are deaf and dumb, without regard to age, and those who are blind and also in like manner of those who are insane or idiots, distinguishing further such of the insane and idiots as are a public charge. For effecting which the marshals aforesaid shall have power, and are hereby required, to appoint one or more assistants in each city and county in their respective districts and territories, residents of such city or county for which they shall be appointed: and shall assign to each of the said assistants a certain division of territory; which division shall not consist, in any case, of more than one county, but may include one or more towns, townships, wards, hundreds, precincts, or parishes, and shall be plainly and distinctly bounded. The said enumeration shall be made by an actual inquiry by such marshals or assistants, at every dwelling house, or by personal inquiry of the head of every family. The marshals and their assistants shall, respectively, before entering on the performance of their duty under this act, take and subscribe an oath or affirmation before some judge or justice of the peace resident within their respective districts or territories, for the faithful performance of their duties. The oath or affirmation of the marshal shall be as follows: "I, A B, marshal of the district (or territory) of ———, do solemnly swear (or affirm) that I will truly and faithfully cause to be made a full and perfect enumeration and description of all persons resident within my district, (or territory,) and return the same to the Secretary of State, agreeably to the directions of an act of Congress entitled 'An act to provide for taking the sixth census or enumeration of the inhabitants of the United States,' according to the best of my ability." The oath or affirmation of an assistant shall be as follows: "I, A B, appointed an assistant to the marshal of the district (or territory) of ———, do

<sup>a</sup> Notes of acts providing for the enumeration of the inhabitants of the United States, vol. 1, 101.

do solemnly swear (or affirm) that I will make a just, faithful, and perfect enumeration and description of all persons resident within the division assigned to me for that purpose by the marshal of the district (or territory) of —, and make due return hereof to the said marshal, agreeably to the directions of an act of Congress entitled 'An act to provide for taking the sixth census or enumeration of the inhabitants of the United States,' according to the best of my ability, and that I will take the said enumeration and description by actual inquiry at every dwelling house within said division, or personal inquiry of the head of every family, and not otherwise." The enumeration shall commence on the first day of June, in the year one thousand eight hundred and forty, and shall be completed and closed within ten calendar months thereafter. The several assistants shall, within nine months, and on or before the first day of October, one thousand eight hundred and forty, deliver to the marshals by whom they shall be appointed, respectively, two copies of the accurate returns of all persons, except Indians not taxed, to be enumerated as aforesaid, within their respective divisions; which returns shall be made in a schedule, and which shall distinguish, in each county, city, town, township, ward, precinct, hundred, district, or parish, according to the civil divisions of the states or territories, respectively, the several families, by the name of the head thereof.

SEC. 2. *And be it further enacted*, That every assistant failing, or neglecting to make a proper return, or making a false return of the enumeration to the marshal, within the time limited by this act, shall forfeit the sum of two hundred dollars, recoverable in the manner pointed out in the next section hereof.

SEC. 3. *And be it further enacted*, That the marshals shall file one copy of each of the several returns aforesaid, and, also, an attested copy of the aggregate amount hereinafter directed, to be transmitted by them, respectively, to the Secretary of State, with the clerks of their respective districts or superior courts, as the case may be, who are hereby directed to receive, and carefully to preserve, the same; and the marshals, respectively, shall, on or before the first day of December, in the year one thousand eight hundred and forty, transmit to the Secretary of State one copy of the several returns received from each assistant, and, also, the aggregate amount of each description of persons within their respective districts or territories; and every marshal failing to file the returns of his assistants, or the returns of any of them, with the clerks of the respective courts, as aforesaid, or failing to return one copy of the several returns received from each assistant, and, also, the aggregate amount of each description of persons in their respective districts or territories, as required by this act, and as the same shall appear from said returns, to the Secretary of State, within the time limited by this act, shall, for every such offense, forfeit the sum of one thousand dollars; which forfeiture shall be recoverable in the courts of the districts or territories where the said offenses shall be committed, or within the circuit courts held within the same, by action of debt, information or indictment; the one half thereof to the use of the United States, and the other half to the informer; but where the prosecution shall be first instituted on behalf of the United States, the whole shall accrue to their use; and, for the more effectual discovery of such offenses, the judges of the several district courts in the several districts, and of the supreme courts in the territories of the United States, as aforesaid, at their next session to be held after the expiration of the time allowed for making the returns of the enumeration hereby directed to the Secretary of State, shall give this act in charge to the grand juries in their respective courts, and shall cause the returns of the several assistants, and the said attested copy of the aggregate amount, to be laid before them for their inspection. And the respective clerks of the said courts shall, within thirty days after the said original returns shall have been laid before the grand juries aforesaid, transmit and deliver all such original returns, so filed to the department of State.

SEC. 4. *And be it further enacted*, That every assistant shall receive at the rate of two dollars for every hundred persons by him returned, where such persons reside in the country; and where such persons reside in a city or town containing more than three thousand persons such assistant shall receive at the same rate for three thousand, and at the rate of two dollars for every three hundred persons over three thousand, residing in such city or town; but where, from the dispersed situation of the inhabitants in some divisions, two dollars will not be sufficient for one hundred persons, the marshals, with the approbation of the judges of their respective districts or territories, may make such further allowance to the assistants in such divisions as shall be deemed an adequate compensation: *Provided*, The same does not exceed two dollars and fifty cents, for every fifty persons by them returned: *Provided, further*, That before any assistant as aforesaid, shall, in any case, be entitled to receive said compensation, he shall take and subscribe the following oath or affirmation, before some judge or justice of the peace, authorized to administer the same, to wit: "I, A B, do solemnly swear (or affirm) that the number of persons set forth in the return

made by me, agreeably to the provision of the act entitled 'An act to provide for taking the sixth census or enumeration of the inhabitants of the United States,' have been ascertained by an actual inquiry at every dwelling house, or a personal inquiry of the head of every family, in exact conformity with the provisions of said act; and that I have, in every respect, fulfilled the duties required of me by said act, to the best of my abilities; and that the return aforesaid is correct and true, according to the best of my knowledge and belief."

The compensation of the several marshals shall be as follows:

The marshal of the district of Maine, four hundred dollars;  
 The marshal of the district of New Hampshire, four hundred dollars;  
 The marshal of the district of Massachusetts, four hundred and fifty dollars;  
 The marshal of the district of Rhode Island, two hundred and fifty dollars;  
 The marshal of the district of Vermont, four hundred dollars;  
 The marshal of the district of Connecticut, three hundred and fifty dollars;  
 The marshal of the southern district of New York, four hundred and fifty dollars;  
 The marshal of the northern district of New York, four hundred and fifty dollars;  
 The marshal of the district of New Jersey, three hundred and fifty dollars;  
 The marshal of the eastern district of Pennsylvania, four hundred dollars;  
 The marshal of the western district of Pennsylvania, four hundred dollars;  
 The marshal of the district of Delaware, two hundred and twenty-five dollars;  
 The marshal of the district of Maryland, four hundred and fifty dollars;  
 The marshal of the eastern district of Virginia, four hundred dollars;  
 The marshal of the western district of Virginia, four hundred dollars;  
 The marshal of the district of Kentucky, four hundred and fifty dollars;  
 The marshal of the district of North Carolina, four hundred and fifty dollars;  
 The marshal of the district of South Carolina, four hundred and fifty dollars;  
 The marshal of the district of Georgia, four hundred and fifty dollars;  
 The marshal of the district of East Tennessee, two hundred dollars;  
 The marshal of the district of West Tennessee, two hundred dollars;  
 The marshal of the middle district of Tennessee, two hundred dollars;  
 The marshal of the district of Ohio, five hundred dollars;  
 The marshal of the district of Indiana, four hundred and fifty dollars;  
 The marshal of the district of Illinois, three hundred dollars;  
 The marshal of the northern district of Mississippi, two hundred dollars;  
 The marshal of the southern district of Mississippi, two hundred dollars;  
 The marshals of the districts of Louisiana, two hundred dollars each;  
 The marshal of the northern district of Alabama, two hundred dollars;  
 The marshal of the southern district of Alabama, two hundred dollars;  
 The marshal of the District of Columbia, one hundred and fifty dollars;  
 The marshal of the district of Michigan, two hundred and fifty dollars;  
 The marshal of the district of Arkansas, two hundred and fifty dollars;  
 The marshals of the Territory of Florida, respectively, fifty dollars;  
 The marshals of the Territory of Wisconsin, two hundred and fifty dollars;  
 The marshals of the Territory of Iowa, two hundred and fifty dollars.

SEC. 5. *And be it further enacted*, That every person whose usual place of abode shall be in any family on the said first day of June, one thousand eight hundred and forty, shall be returned as of such family; and the name of every person who shall be an inhabitant of any district or territory, without a settled place of residence, shall be inserted in the column of the schedule which is allotted for the heads of families in the division where he or she shall be on the said first day of January, and every person occasionally absent at the time of enumeration, as belonging to the place in which he or she usually resides in the United States.

SEC. 6. *And be it further enacted*, That each and every free person more than sixteen years of age, whether heads of families or not, belonging to any family within any division, district, or territory, made or established within the United States, shall be, and hereby is, obliged to render to the assistant of the division, if required, a true account, to the best of his or her knowledge, of every person belonging to such family, respectively, according to the several descriptions aforesaid, on pain of forfeiting twenty dollars, to be sued for and recovered in any action of debt, by such assistant; the one half to his own use, and the other half to the use of the United States.

SEC. 7. *And be it further enacted*, That each and every assistant, previous to making his return to the marshal, shall cause a correct copy, signed by himself of the schedule containing the number of inhabitants within his division, to be set up at two of the most public places within the same, there to remain for the inspection of all concerned; for each of which copies the said assistant shall be entitled to receive five dollars: *Provided*, Proof of the schedule having been set up shall be transmitted to

Secretary of State one copy of the several returns and statistical tables, and also the aggregate amount of each description of persons within their respective districts or territories, and an aggregate also of the statistical information obtained within said districts.

SEC. 2. *And be it further enacted*, That in the enumeration of transient persons, the name of every person who shall be an inhabitant of any district or territory without a settled place of residence, shall be inserted in the column of the schedule which is allotted for the heads of families in the division where he or she shall be on the said first day of June, eighteen hundred and forty.

SEC. 3. *And be it further enacted*, That the compensation of the marshal of Missouri shall be three hundred dollars.

SEC. 4. *And be it further enacted*, That in lieu of the five dollars heretofore provided as compensation to the assistants for each of the two correct copies of the schedules containing the number of inhabitants within his division to be set up in two of the most public places within the same, that there be allowed for said copies, and each assistant shall be entitled to receive, at the rate of five dollars for ten sheets, or in that proportion for a less number, and at the rate of thirty cents for every sheet over ten in the copy of the return. And in all cases, where the assistants to the marshals shall have performed the duties and made the returns required by the thirteenth section of the act for taking the sixth census, they shall be allowed therefor a sum equal to twenty per centum on the allowance made to them respectively, for the enumeration.

SEC. 5. *And be it further enacted*, That the copies of returns and aggregate amounts, directed to be filed by the marshals with the clerks of the several District Courts and Supreme Courts of the territories of the United States, shall be preserved by said clerks and remain in their offices respectively, and so much of the act to which this is an amendment as requires that they shall be transmitted by said clerks to the Department of State is hereby repealed.

SEC. 6. *And be it further enacted*, That it shall be the duty of the Secretary of State to cause to be noted all the clerical errors in the returns of the marshals and assistants, whether in the additions, classification of inhabitants or otherwise, and to direct to be printed in the manner provided for in the act to which this is an amendment the corrected aggregate returns only.

SEC. 7. *And be it further enacted*, That so much of the thirteenth section of the act of the third of March, one thousand eight hundred and twenty-five, as restricts the weight of packages by mail, shall not apply to the transmission of papers relating to the census or enumeration of the inhabitants of the United States, and upon the transmission of said papers by the mail, between the marshals and their assistants, it shall be lawful for the postmasters to charge periodical pamphlet postage only.

SEC. 8. *And be it further enacted*, That it shall be lawful for the marshal of any district, to take part in the enumeration of a portion of his district, and upon his so doing he shall have the benefit of the compensation allotted therefor, as if it had been done by an assistant.

SEC. 9. *And be it further enacted*, That the compensation of the respective persons who are employed by the Secretary of State in executing the provisions of this act, shall be, fifteen hundred dollars to the superintending clerk, per annum; to the recording clerk, eight hundred dollars per annum; to an assistant clerk, six hundred and fifty dollars per annum; and to the packer and folder, six hundred and fifty dollars per annum; and the said salaries shall commence from the date of their being so employed, and that of the persons to be employed, to examine and correct the returns from the marshals and their assistants, at the same rates as were paid for the like services rendered under the act for taking the fifth census, to be paid out of any money appropriated for carrying into effect the act for taking the sixth census or enumeration of the inhabitants of the United States.

SEC. 10. *And be it further enacted*, That all acts and parts of acts whose provisions are inconsistent with the enactments of this amendatory act, are hereby repealed.

Approved, February 26, 1840.

ACTS APPROVED MAY 23, 1850, AND AUGUST 30, 1850.

AN ACT providing for the taking of the seventh and subsequent censuses of the United States, and to fix the number of the members of the House of Representatives, and provide for their future apportionment among the several States.

#### I.—Of the duties, liabilities, and compensation of marshals.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That the marshals of the several districts of the United States, including the District of Columbia and the territories, are hereby required respectively

prized, out of any money in the Treasury not otherwise appropriated, one hundred and fifty thousand dollars; out of which the said Secretary of the Interior may allow, to the person employed as secretary of the census board, a compensation after the rate of three thousand dollars per annum during the period he may necessarily be in their employ.

SEC. 21. *And be it further enacted*, That whenever a marshal shall certify that an assistant has completed to his satisfaction, and made return of the subdivision confided to him, and shall also certify the amount of compensation to which, under the provisions of this act, such assistant is entitled, designating how much for each kind of service, the Secretary of the Interior shall thereupon cause one-half of the sum so due to be paid to such assistant, and when the returns have been carefully examined for classification, if found executed in a manner satisfactory, then he shall also cause the other half to be paid. And he shall make payments in the manner and upon like conditions to the several marshals for their services.

SEC. 22. *And be it further enacted*, That the tables hereto annexed, and made part of this act, are numbered from one to six, inclusive. (a)

SEC. 23. *And be it further enacted*, That if no other law be passed providing for the taking of the eighth, or any subsequent census of the United States, on or before the first day of January of any year, when, by the Constitution of the United States, any future enumeration of the inhabitants thereof is required to be taken, such census shall, in all things, be taken and completed according to the provisions of this act.

SEC. 24. *And be it further enacted*, That from and after the third day of March, one thousand eight hundred and fifty-three, the House of Representatives shall be composed of two hundred and thirty-three members, to be apportioned among the several states in the manner directed in the next section of this act.

SEC. 25. *And be it further enacted*, That so soon as the next and each subsequent enumeration of the inhabitants of the several states, directed by the Constitution of the United States to be taken, shall be completed and returned to the office of the Department of the Interior, it shall be the duty of the Secretary of the Interior to ascertain the aggregate representative population of the United States, by adding to the whole number of free persons in all the states, including those bound to service for a term of years, and excluding Indians not taxed, three-fifths of all other persons; which aggregate population he shall divide by the number two hundred and thirty-three, and the product of such division, rejecting any fraction of an unit, if any such happen to remain, shall be the ratio, or rule of apportionment, of Representatives among the several states under such enumeration; and the said Secretary of the Department of the Interior shall then proceed, in the same manner, to ascertain the representative population of each state, and to divide the whole number of the representative population of each state by the ratio already determined by him as above directed; and the product of this last division shall be the number of Representatives apportioned to such state under the then last enumeration: *Provided*, That the loss in the number of members caused by the fractions remaining in the several states, on the division of the population thereof, shall be compensated for by assigning to so many states having the largest fractions, one additional member each for its fraction as may be necessary to make the whole number of Representatives two hundred and thirty-three. *And provided, also*, That if, after the apportionment of the Representatives under the next, or any subsequent census a new state or states shall be admitted into the Union, the Representative or Representatives assigned to such new state or states shall be in addition to the number of Representatives herein above limited; which excess of Representatives over two hundred and thirty-three shall only continue until the next succeeding apportionment of Representatives under the next succeeding census.

SEC. 26. *And be it further enacted*, That when the Department of the Interior shall have apportioned the Representatives, in the manner above directed, among the several states under the next or any subsequent enumeration of the inhabitants of the United States, he shall, as soon as practicable, make out and transmit, under the seal of his office, to the House of Representatives, a certificate of the number of members apportioned to each state under the then last enumeration; and shall likewise make out and transmit, without delay, to the executive of each state, a certificate, under his seal of office, of the number of members apportioned to such state under such last enumeration.

SEC. 27. *And be it further enacted*, That the Secretary of the Interior, in his instructions to the marshals, shall direct that the statistics in regard to all other descriptions of hemp not embraced in the denomination of dew and water rotted, shall be taken and estimated in the returns.

Approved, May 23, 1850.

---

a Schedules 1 to 6 were appended to act. (See Appendix A.)

consent of said Superintendent, to employ such persons as enumerators in each district, one for each subdivision, and resident therein, who shall be selected with reference to their fitness, and without reference to their political affiliations, according to the apportionment approved by the Superintendent to transmit to enumerators the printed forms and schedules issued from the Census Office, in quantities suited to the requirements of each subdivision; to instruct enumerators the necessary instructions and directions relating to the census, and to the methods of conducting the census, and to advise with and assist enumerators in person and by letter, as freely and fully as may be required to carry out the purposes of this act; and under the direction of the Superintendent of Census to facilitate the taking of the census with as little delay as possible, he shall cause to be distributed by the enumerators, prior to the taking of the enumeration, schedules to be filled up by householders and others; to provide for the early transmission to this office of the returns of enumerators, embracing all the returns as filled by them in the course of enumeration, and for the due receipt and filing of such returns pending their transmission to the Census Office; to examine and utilize the returns of enumerators, in order to ascertain whether the work has been performed in all respects in compliance with the provisions of law, and whether any town or village or integral portion of the district has been omitted from the enumeration; to forward to the Superintendent of Census the completed returns of each district in such time and manner as shall be prescribed by the said Superintendent in the event of discrepancies or deficiencies appearing in the returns from any district, to use all diligence in causing the same to be corrected or supplied; to prepare up and forward to the Superintendent of Census the accounts required for ascertaining the amount of compensation due under the provisions of this act to each enumerator of his district.

Sec. 6. Each supervisor of census shall, upon the completion of his duties to the satisfaction of the Secretary of the Interior, receive the sum of five hundred dollars as full compensation for all services rendered and expenses incurred by him, except allowance for clerk hire may be made, at the discretion of the Superintendent of Census.

Sec. 7. No enumerator shall be deemed qualified to enter upon his duties until he has received from the supervisor of census of the district to which he belongs a commission, under his hand, authorizing him to perform the duties of an enumerator, and setting forth the boundaries of the subdivision within which such duties are to be performed by him. He shall, moreover, take and subscribe the following oath or affirmation:

"I, \_\_\_\_\_, an enumerator for taking the \_\_\_\_\_ census of the United States, do solemnly swear (or affirm) that I will make a true and exact enumeration of all the inhabitants within the subdivision assigned to me, and will also faithfully collect all other statistics therein, as provided for in the act for taking the \_\_\_\_\_ census, and in conformity with all lawful instructions which I may receive, and will make due and correct returns thereof as required by said act, and will not disclose any information contained in the schedules, lists, or statements obtained by me to any person or persons, except to my superior officers.  
(Signed) \_\_\_\_\_."

Which said oath or affirmation may be administered by any judge of a court of record, or any justice of the peace empowered to administer oaths; and a copy thereof, duly authenticated, shall be forwarded to the supervisor of census before the date fixed herein for the commencement of the enumeration.

Sec. 8. It shall be the duty of each enumerator, after being qualified in the manner aforesaid, to visit personally each dwelling house in his subdivision, and each family therein, and each individual living out of a family in any place of abode, and in inquiry made of the head of such family, or of the member thereof deemed most reliable and worthy of trust, or of such individual living out of a family, to obtain truth and every item of information and all the particulars required by this act, as from and at the usual place of abode of such family or individual living out of a family competent to answer the inquiries made in compliance with the requirements of this act, then it shall be lawful for the enumerator to obtain the required information, as far as may be practicable, from the family or families or person or persons living nearest to such place of abode: *Provided*, That Indians not taxed shall be omitted in the enumeration; but the Superintendent of Census may employ special agents or other means to make an enumeration of all Indians not taxed, within the jurisdiction of the United States, with such information as to their condition as may be obtainable.

ered in an action of debt in any court of competent jurisdiction, in the name and to the use of the United States, and in addition thereto shall be guilty of a misdemeanor, and on conviction thereof shall be imprisoned for a term not exceeding one year.

SEC. 15. That all fines and penalties imposed by this act may be enforced by indictment or appropriate action at law in any court of competent jurisdiction where such offenses shall have been committed or forfeitures incurred.

SEC. 16. That the superintendent, his chief clerk, supervisors, and enumerators are hereby authorized to transmit through the post-office any paper or document relating to the census, by writing thereon "Official business—Census," and subscribing the same, with the addition to his name of his official title. But this privilege shall extend to nothing but documents and papers relating to the census, which shall pass free. And any superintendent, supervisor, enumerator, or clerk, who shall use or exercise this privilege for any purpose other than the legitimate discharge of the duties of his office shall be deemed guilty of a misdemeanor, and upon conviction shall forfeit for each offense a sum not exceeding one hundred dollars.

SEC. 17. The schedules of inquiries at the tenth census shall be the same as those contained in section number twenty-two hundred and six of the Revised Statutes of the United States, of eighteen hundred and seventy-eight, with the following exceptions, to wit:

Schedule number one shall contain inquiries as to the relation of each person enumerated to the head of the family, whether wife, son, daughter, servant, boarder, or other; as to the civil conditions of each person enumerated, whether married, widowed, or single; as to the place of birth of the parents of each person enumerated; as to all foreign born, whether alien or naturalized persons; and as to the physical and mental health of each person enumerated whether active or disabled, maimed, crippled, bed-ridden, deaf, dumb, blind, insane, or idiotic, and whether employed or unemployed, and if unemployed during what portion of the year. From the same schedule the inquiries as to the value of real and personal estate owned shall be stricken out.

To schedule number two, the Superintendent of the Census may, with the approval of the Secretary of the Interior, add inquiries relating to the acreage of the several crops reported; and, with a like approval, may drop from the schedule such of the minor crops as it may be deemed expedient to omit from the enumeration.

Schedule number three shall contain inquiries respecting the kind and amount of power employed in establishments of productive industry, and the kind and number of machines in use, together with the maximum capacity of such establishment, where the Superintendent of Census shall deem such inquiry appropriate; and the said Superintendent may, when he shall regard it expedient, prepare special blank forms for separate industries.

Schedule number four shall contain inquiries relating to the public indebtedness of cities, counties, incorporated villages, and towns, and school districts; and of the ownership of the public debt of the United States, by whom owned and the respective amounts; and such additional inquiries respecting the same, as well as respecting the public paupers and criminals, as the Superintendent of Census shall deem necessary to secure full information respecting the numbers and condition of these classes.

Schedule number five shall contain inquiries as to the birthplace of the father and mother of each person reported as having died during the year, and as to the usual occupation of each such person.

The Superintendent of Census shall require and obtain from every railroad corporation, or the lessee or receiver thereof, the following facts, to exhibit the condition of such corporation, and the condition, characteristics, and operations of the railroad or railroads owned or controlled by such corporation, or the lessee or receiver thereof, on the first of June of the year eighteen hundred and eighty, to wit: The name of the corporation or company, with the corporate names of all leased lines; the number of miles projected or authorized by law or charter, with the several terminal points of the same; the number of miles completed, exhibiting separately the length of lines within each state; the number of miles operated during the last complete fiscal year preceding June first, eighteen hundred and eighty; the capital stock allowed by law or charter, and the amount paid up; the amount of funded and of unfunded debt, with period of funded debt, and rate of interest thereon, and the amount of all sinking funds provided for the redemption of such debts; the number of acres of land derived from public grants remaining unsold; the total cost of construction, of equipment, and of all permanent investments, including the cost of purchase of other lines of road and of telegraph lines; the amount and character of rolling stock; the number and class of employees; the receipts of such corporation or company for the last complete fiscal year preceding June first, eighteen hundred and eighty, exhibit-

tions, to wit: In cities where an official registration of deaths is maintained the Superintendent of Census may, in his discretion, withdraw the mortality schedules from the several enumerators within such cities, and may obtain the statistics of this act through official records, paying therefor such sum as may be necessary, not exceeding the amount which is by this act authorized to be paid to enumerators for a similar service, namely, two cents for each death thus ascertained. Whenever he shall deem it expedient, the Superintendent of Census may prepare schedules for manufacturing and social statistics from the enumerators of the several subdivisions, and may charge the collection of these statistics upon special agents, to be employed without respect to locality. And said Superintendent may employ experts and special agents to investigate in their respective branches the manufacturing, railroad, fishing, mining, and other industries of the country, and the statistics of telegraph, express, transportation, and insurance as he may designate and require. And the Superintendent of Census may, with the approval of the Secretary of the Interior, prepare schedules containing interrogatories as shall, in his judgment, be best adapted to elicit this information in such specifications, divisions, and particulars under each head as he may deem necessary to that end. Such experts and special agents shall take the same as the enumerators of the several subdivisions, and shall have equal rank with such enumerators in respect to the subjects committed to them, and shall receive compensation at rates to be fixed by the Superintendent of Census with the approval of the Secretary of the Interior: *Provided*, That the same shall not exceed six dollars per day and actual traveling expenses.

The enumeration required by this act shall commence on the first Monday of June and be taken as of that date, and each enumerator shall prosecute the canvass in his subdivision from that date forward on each week-day without intermission except for sickness or other urgent cause; and any unnecessary cessation of his duty shall be sufficient ground for his removal and the appointment of another person in his place; and any person so appointed shall take the oath required of enumerators, and shall receive compensation at the same rates. And it shall be the duty of each enumerator to complete the enumeration of his district, and to prepare returns hereinbefore required to be made, and to forward the same to the Superintendent of his district on or before the first day of July, eighteen hundred and eighty-eight. In any city having over ten thousand inhabitants under the census of eighteen hundred and seventy, the enumeration of population shall be taken within two weeks from the first Monday of June; and any delay beyond the dates above respectively, until proof satisfactory to the Superintendent of Census shall be furnished, shall be sufficient cause for withholding the compensation to which he would be entitled by compliance with the provisions of this act, until proof satisfactory to the Superintendent of Census shall be furnished that such delay was by reason of causes beyond the control of such enumerator.

20. The sum of three millions of dollars is hereby fixed and limited as the maximum cost of the census herein provided for, exclusive of printing and engraving; and it shall not be lawful for the Secretary of the Interior or the Superintendent of Census to incur any expense or obligation whatever, in respect to said census, in excess of that sum. And the sum of two hundred and fifty thousand dollars for preliminary expenses is hereby appropriated out of any money in the Treasury not otherwise appropriated, which sum shall form part of the three millions fixed as the cost of the census.

21. The Secretary of the Interior is hereby authorized whenever he may deem proper, to call upon any other department or officer of the government for assistance or information pertinent to the enumeration herein required.

22. That if any state or territory, through its duly appointed officers or agents, shall, during the two months beginning on the first Monday of June of the year in which the mean between the decennial censuses of the United States is by law directed to be taken, take and complete a census in all respects according to the schedules and forms of enumeration in the census of the United States and shall forward to the Secretary of the Interior, on or before the first of September following, a full and authentic copy of all schedules returned and reports made by the enumerators and agents charged with such enumeration, then the Secretary of the Treasury, upon receiving a certificate from the Secretary of the Interior, that such schedules and reports have been duly deposited, pay, on the requisition of the governor of the state or territory, out of any funds in the Treasury not otherwise appropriated, a sum equal to fifty per centum of the amount which was paid to all supervisors and enumerators within such state or territory at the United States census next preceding, increased by one half the percentage of gain in population in such state or territory between the two United States censuses next preceding: *Provided*: That the schedules used for the purposes of the enumeration herein provided for shall

enumerated, he shall make known to the bystanders, if any. And enumerators by said act to make return to supervisors is hereby in days. And each enumerator shall be paid for his services in accordance of inhabitants as required by this act a sum to be fixed by the act of Census, in no case to exceed two dollars and fifty cents per day. Oath of office prescribed by section seven of said act be so amended as and require the making and filing the list of inhabitants as required by

at to pay the enumerators for the additional services required by this of one hundred and twenty-five thousand dollars, or so much thereof necessary, be, and the same hereby is, appropriated out of any money in not otherwise appropriated.

Superintendent of Census shall collect and publish the statistics of the industries, resources of the district of Alaska, with such fullness as he expedient, and as he shall find practicable under the appropriations, be made, for the expenses of the tenth census.

d, April 20, 1880.

ADOVED MARCH 1, 1889; JANUARY 23, 1890; FEBRUARY 22, 1890; MARCH 19, 1890 (RESOLUTION); APRIL 3, 1890; MAY 21, 1890; AUGUST 14, 1890; AND JULY 6, 1892.

AN ACT to provide for taking the Eleventh and subsequent censuses.

*acted by the Senate and House of Representatives of the United States of America as assembled,* That a census of the population, wealth, and industry of the States shall be taken as of the date of June first, eighteen hundred and ninety. That there shall be established in the Department of the Interior an office nominated the Census Office, the chief officer of which shall be called the Superintendent of Census, whose duty it shall be, under the direction of the head of the Department, to superintend and direct the taking of the Eleventh Census of the States, in accordance with the laws relating thereto, and to perform such duties as may be required of him by law.

3. The Superintendent of Census shall be appointed by the President, by and with the advice and consent of the Senate; and he shall receive an annual salary of one thousand dollars; and for the purposes of taking the Eleventh Census of the United States, the Secretary of the Interior may from time to time as the necessity or arises appoint a chief clerk and one disbursing clerk of the Census Office at an annual salary each of twenty-five hundred dollars, two stenographers, ten chiefs of division, at an annual salary each of two thousand dollars, ten clerks of class four, twenty clerks of class three, thirty clerks of class two, with such number of clerks of class one, and of clerks, copyists, and computers, at salaries of not less than seven hundred and twenty dollars nor more than one thousand dollars per annum, as may be necessary for the proper and prompt compilation of the results of the enumeration of the census herein provided to be taken. And the Secretary of the Interior may also appoint one captain of the watch at a salary of eight hundred and forty dollars per annum, two messengers and such number of watchmen and assistant messengers, laborers and skilled laborers at six hundred dollars each per annum, messenger boys at salaries of four hundred dollars each per annum, and watchmen at salaries of two hundred and forty dollars each per annum, as may be necessary to carry out the provisions of this act. And upon such compilation and publication of said census, or at an earlier date, in the discretion of the Secretary of the Interior, the period of service of said clerks and employees shall end: That clerks transferred or detailed for service under this act from existing positions of the civil service shall not lose their positions or rights under the act to create and improve the civil service of the United States. All of the clerks of class four, three, and two, above provided for, may be statistical experts. The chief clerk herein provided for shall, before entering upon his duties, give bond to the Treasurer of the United States in the sum of fifty thousand dollars, which shall be conditioned that the said officer shall render a true and faithful account to the Treasurer, quarter-yearly, of all moneys and properties which shall be by him received by virtue of his office, with sureties to be approved by the Solicitor of the Treasury. Such bond shall be filed in the office of the First Comptroller of the Treasury, to be by him put in suit upon any breach of the conditions thereof. All nominations for appointment and promotion, under this act, shall be in the discretion under the direction of the Secretary of the Interior.

4. That the Secretary of the Interior shall, on or before the first day of March, eighteen hundred and ninety, on the recommendation of the Superintendent of Census designate the number, whether one or more, of Supervisors of census, to be appointed within each state and territory, and the District of Columbia, who shall

be appointed by the President of the United States, by and with the advice and consent of the Senate. The number of such supervisors shall not exceed one hundred and seventy-five. The Superintendent and the supervisors shall, before entering upon the duties of their offices, respectively, take and subscribe the following oath or affirmation: I, \_\_\_\_\_ (Superintendent or supervisor, as the case may be), do solemnly swear or affirm that I will support the Constitution of the United States, and perform and discharge the duties of the office of (Superintendent or supervisor, as the case may be), according to law, honestly and correctly, to the best of my ability; which oaths shall be filed in the office of the Secretary of the Interior.

SEC. 5. Each supervisor of census shall be charged with the performance, within his own district, of the following duties: To propose to the Superintendent of Census the division of his district into subdivisions most convenient for the purpose of enumeration; to designate to the Superintendent of Census suitable persons, and, with the consent of said Superintendent, to employ such persons as enumerators within his district, one for each subdivision, and resident therein, who shall be selected solely with reference to fitness, and without reference to their political party affiliations, according to the division approved by the Superintendent of Census: *Provided*, That in the appointment of enumerators, preference shall, in all cases be given to properly qualified persons honorably discharged from the military or naval service of the United States residing in their respective districts; but in case it shall occur in any enumeration district that no person qualified to perform and willing to undertake the duties of enumerator resides in that district, the supervisor may appoint any fit person, resident in the county, to be the enumerator of that district; to transmit to enumerators the printed forms and schedules issued from the Census Office, in quantities suited to the requirements of each subdivision; to communicate to enumerators the necessary instructions and directions relating to their duties, and to the methods of conducting the census, and to advise with and counsel enumerators in person and by letter, as freely and fully as may be required to secure the purposes of this act; and under the direction of the Superintendent of Census, and to facilitate the taking of the census with as little delay as possible, he may cause to be distributed by the enumerators, prior to the taking of the enumeration, schedules to be filled up by householders and others; to provide for the early and safe transmission to his office of the returns of enumerators, embracing all the schedules filled by them in the course of enumeration, and for the due receipt and custody of such returns pending their transmission to the Census Office; to examine and scrutinize the returns of enumerators, in order to ascertain whether the work has been performed in all respects in compliance with the provisions of law, and whether any town or village or integral portion of the district has been omitted from enumeration; to forward to the Superintendent of Census the completed returns of his district in such time and manner as shall be prescribed by the said Superintendent, and in the event of discrepancies or deficiencies appearing in the returns from his district, to use all diligence in causing the same to be corrected or supplied; to make up and forward to the Superintendent of Census the accounts required for ascertaining the amount of compensation due under the provisions of this act to each enumerator of his district. Whenever it shall appear that any portion of the enumeration and census provided for in this act has been negligently or improperly taken and is by reason thereof incomplete, the Superintendent of the Census, with the approval of the Secretary of the Interior, may cause such incomplete and unsatisfactory enumeration and census to be amended or made anew under such methods as may, in his discretion, be practicable.

SEC. 6. Each supervisor of census shall, upon the completion of his duties to the satisfaction of the Secretary of the Interior, receive the sum of one hundred and twenty-five dollars, and in addition thereto, in thickly-settled districts, one dollar for each thousand or majority fraction of a thousand of the population enumerated in his district, and in sparsely-settled districts one dollar and forty cents for each thousand or majority fraction of a thousand of the population enumerated in such district; such sums to be in full compensation for all services rendered and expenses incurred by him, except that an allowance for clerk-hire may be made, at the discretion of the Superintendent of Census: *Provided*, That, in the aggregate, no supervisor shall be paid less than the sum of five hundred dollars. The designation of the compensation per thousand, as provided in this section, shall be made by the Secretary of the Interior at least one month in advance of the date for the commencement of the enumeration.

SEC. 7. That all mail matter of whatever class, relative to the census and addressed to the Census Office, to the Superintendent of Census, his chief clerk, supervisors or enumerators; and indorsed "Official business, Department of the Interior, Census Office," shall be transported free of postage; and if any person shall make use of any

such indorsement to avoid the payment of postage on his private letter, package, or other matter in the mail, the person so offending shall be deemed guilty of a misdemeanor, and subject to a fine of three hundred dollars, to be prosecuted in any court of competent jurisdiction.

SEC. 8. No enumerator shall be deemed qualified to enter upon his duties until he has received from the supervisor of census of the district to which he belongs a commission, under his hand, authorizing him to perform the duties of an enumerator, and setting forth the boundaries of the subdivision within which such duties are to be performed by him. He shall, moreover, take and subscribe the following oath or affirmation:

"I, ———, an enumerator for taking the ——— census of the United States, do solemnly swear or affirm, that I will make a true and exact enumeration of all the inhabitants within the subdivision assigned to me, and will also faithfully report all other statistics therein, as provided for in the act for taking the ——— census, and in conformity with all lawful instructions which I may receive, and will make true and correct returns thereof as required by said act, and will not disclose any information contained in the schedules, lists, or statements obtained by me to any person or persons, except to my superior officers.

Signed: \_\_\_\_\_

Which said oath or affirmation may be administered by any judge or clerk of a court of record, or any justice of the peace, or notary public, empowered to administer oaths, which oath, duly authenticated, shall be forwarded to the supervisor of census before the date fixed herein for the commencement of the enumeration.

SEC. 9. It shall be the duty of each enumerator, after being qualified in the manner aforesaid, to visit personally each dwelling-house in his subdivision, and each family therein, and each individual living out of a family in any place of abode, and by inquiry made of the head of such family, or of the member thereof deemed most credible and worthy of trust, or of such individual living out of a family, to obtain each and every item of information and all the particulars required by this act, as of date June first, eighteen hundred and thirty—. And in case of persons residing at the usual place of abode of such family, or individual living out of a family, dependent to answer the inquiries made in compliance with the requirements of this act, then it shall be lawful for the enumerator to obtain the required information as nearly as may be practicable, from the family or families, or persons residing nearest to such place of abode. The Superintendent of Census may employ special agents or other means to make an enumeration of all Indians living within the jurisdiction of the United States, with such information as to their condition as may be obtainable, classifying them as to Indians taxed, and Indians not taxed.

SEC. 10. And it shall be the duty of each enumerator to forward the original schedules, duly certified, to the supervisor of census of his district, as his returns under the provisions of this act.

SEC. 11. The compensation of enumerators shall be ascertained and fixed as follows: In subdivisions, where the Superintendent of Census shall deem such an allowance sufficient, an allowance not exceeding two cents for each living inhabitant, two cents for each death reported, fifteen cents for each farm, and twenty cents for each establishment of productive industry enumerated and returned, and twenty cents for each soldier, sailor, or marine, or widow of such soldier, sailor, or marine returned five cents, may be given in full compensation for all services; *Provided*, That the by the Superintendent of Census at least one month in advance of the enumeration. Rates of compensation for all other subdivisions shall be fixed in advance of the enumeration by the Superintendent of Census, with the approval of the Secretary of the Interior, according to the difficulty of enumeration, having reference to the nature of the region to be canvassed and the density or sparseness of settlement, or other considerations pertinent thereto; but the compensation shall not be less than one dollar per day of ten hours actual field-work each, when a per diem compensation shall be established by the Secretary of the Interior, not more than three cents for each living inhabitant, twenty cents for each farm, and thirty cents for each establishment of productive industry enumerated and returned, when a per capita compensation shall be deemed advisable by the Secretary of the Interior. No claim for mileage or traveling expenses shall be allowed any enumerator in either class of subdivisions, except in extreme cases, and then only when authority has been previously granted by the Superintendent of Census. The Superintendent of Census shall prescribe uniform methods and suitable forms for keeping accounts of the number of

people enumerated or of the time occupied in field-work for the purpose of ascertaining the amounts due to enumerators, severally, under the provisions of this act.

SEC. 12. That the subdivision assigned to any enumerator shall not exceed four thousand inhabitants, as near as may be, according to estimates based on the Tenth Census. The boundaries of all subdivisions shall be clearly described by civil divisions, rivers, roads, public surveys, or other easily distinguished lines.

SEC. 13. That any supervisor or enumerator, who, having taken and subscribed the oath required by this act, shall, without justifiable cause, neglect or refuse to perform the duties enjoined on him by this act, or shall, without the authority of the Superintendent, communicate to any person not authorized to receive the same, any information gained by him in the performance of his duties, shall be deemed guilty of a misdemeanor, and upon conviction shall be fined not exceeding five hundred dollars; or, if he shall willfully and knowingly swear or affirm falsely, he shall be deemed guilty of perjury, and, on conviction thereof, shall be imprisoned not exceeding three years, and be fined not exceeding eight hundred dollars; or if he shall willfully and knowingly make false certificates or fictitious returns, he shall be deemed guilty of a misdemeanor, and, upon conviction of either of the last-named offenses, he shall be fined not exceeding five thousand dollars and be imprisoned not exceeding two years.

SEC. 14. That if any person shall receive or secure to himself any fee, reward, or compensation as a consideration for the appointment or employment of any person as enumerator or clerk or other employee, or shall in any way receive or secure to himself any part of the compensation provided in this act for the services of any enumerator or clerk or other employee, he shall be deemed guilty of a misdemeanor and, on conviction thereof, shall be fined not more than three thousand dollars, or be imprisoned not more than one year or both, in the discretion of the court.

SEC. 15. That each and every person more than twenty years of age, belonging to any family residing in any enumeration district or subdivision, and in case of the absence of the heads and other members of any such family, then any representative of such family shall be, and each of them hereby is, required, if thereto requested by the Superintendent, supervisor, or enumerator to render a true account to the best of his or her knowledge, of every person belonging to such family, in the various particulars required by law, and whoever shall willfully fail or refuse shall be guilty of a misdemeanor, and upon conviction thereof shall be fined in a sum not exceeding one hundred dollars.

And every president, treasurer, secretary, agent, director, or other officer of every corporation from which answers to any of the schedules provided for by this act are herein required, who shall, if thereto requested by the Superintendent, supervisor, or enumerator, willfully neglect or refuse to give true and complete answers to any inquiries authorized by this act, or shall willfully give false information, shall be guilty of a misdemeanor and on conviction thereof shall be fined not exceeding ten thousand dollars, to which may be added imprisonment for a period not exceeding one year.

SEC. 16. That all fines and penalties imposed by this act may be enforced by indictment or information in any court of competent jurisdiction.

SEC. 17. That the schedules of inquiries at the Eleventh Census shall be the same as those contained in section number twenty-two hundred and six of the Revised Statutes of the United States, of eighteen hundred and seventy-eight, as amended by section seventeen of the act entitled "An act to provide for taking the Tenth and subsequent censuses," approved March third, eighteen hundred and seventy-nine, with such changes of the subject matter, emendations, and modifications as may be approved by the Secretary of the Interior; it being the intent of this section to give to said Secretary full discretion over the form of the schedules of such inquiries: *Provided, however,* That said Superintendent shall, under the authority of the Secretary of the Interior, cause to be taken on a special schedule of inquiry, according to such form as he may prescribe, the names, organizations, and length of service of those who had served in the Army, Navy, or Marine Corps of the United States in the war of the rebellion, and who are survivors at the time of said inquiry, and the widows of soldiers, sailors or marines: *And provided,* That the population schedule shall include an inquiry as to the number of negroes, mulattoes, quadroons, and octoroons. The report which the Superintendent of Census (if directed by said Secretary) is required to obtain from railroad corporations, incorporated express companies, telegraph companies, and insurance companies, and from all corporations or establishments reporting products other than agricultural products, shall be of and for the fiscal year of such corporations or establishments having its termination nearest to the first of June, eighteen hundred and ninety; the Superintendent of Census shall collect and publish the statistics of the population, industries, and resources of the district of Alaska,

fullness as he may deem expedient, and as he shall find practicable under the conditions made, or to be made, for the expenses of the Eleventh Census. He shall fix the time of the general enumeration herein provided for, or prior thereto, as the Secretary of the Interior may determine, collect the statistics of and relating to the indebtedness of private corporations and individuals, and make report to Congress; and he shall collect, from official sources, information relating to farms. The only volumes that shall be prepared and published in connection with said census shall relate to population and social statistics relating to the products of manufactories, mining and agriculture, mortality and vital statistics, valuation and public indebtedness, recorded indebtedness, and to statistics relating to railroad corporations, incorporated express, telegraph and insurance companies, a list of the names, organizations, and length of service of surviving soldiers, sailors and marines, and the widows of soldiers, sailors and marines.

18. That each enumerator in his subdivision shall be charged with the collection of the facts and statistics required by each and all the several schedules, with the following exceptions, to wit: In cities or states where an official registration of births is maintained, the Superintendent of Census may, in his discretion, withhold the mortality schedule from the several enumerators within such cities or states, and obtain the statistics required by this act through official records, paying therefor such sum as may be found necessary, not exceeding the amount which is by this act authorized to be paid to enumerators for a similar service, namely, two cents for each death thus returned. Whenever he shall deem it expedient, the Superintendent of Census may withhold the schedules for manufacturing, mining, and social statistics from the enumerators of the several subdivisions, and may charge the collection of these statistics upon experts and special agents, to be employed without respect to locality. And said Superintendent may employ experts and special agents to investigate and ascertain the statistics of the manufacturing, railroad, fishing, mining, cattle, and other industries of the country, and of telegraph, express, transportation, and insurance companies as he may designate and require.

And the Superintendent of Census shall, with the approval of the Secretary of the Interior, prepare schedules containing such interrogatories as shall, in his judgment, be best adapted to elicit this information, with such specifications, divisions, and particulars under each head as he shall deem necessary to that end. Such experts and special agents shall take the same oath as the enumerators of the several subdivisions, and shall have equal authority with such enumerators in respect to the subjects committed to them, and they shall receive compensation at rates to be fixed by the Superintendent of Census with the approval of the Secretary of the Interior: *Provided*, That the same shall in no case exceed six dollars per day and actual necessary traveling expenses.

19. That the enumeration required by this act shall commence on the first Monday of June, eighteen hundred and ninety, and be taken as of that date, and each enumerator shall prosecute the canvass of his subdivision from that date forward on each week-day without intermission, except for sickness or other urgent cause; and any unnecessary cessation of his work shall be sufficient ground for his removal and the appointment of another person in his place; and any person so appointed shall take the oath required of enumerators, and shall receive compensation at the same rates. And it shall be the duty of each enumerator to complete the enumeration of his district, and to prepare the returns hereinbefore required to be made, and to forward the same to the supervisor of his district on or before the first day of July, eighteen hundred and ninety, and in any city having over ten thousand inhabitants under the census of eighteen hundred and eighty, the enumeration of population shall be taken within two weeks from the first Monday of June; and any delay beyond the dates above respectively, on the part of any enumerator, shall be sufficient cause for withholding the compensation to which he would be entitled by compliance with the provisions of this act, until proof satisfactory to the Superintendent of Census shall be furnished that such delay was by reason of causes beyond the control of such enumerator.

20. That the sum of six million four hundred thousand dollars is hereby fixed and limited as the maximum cost of the census herein provided for, exclusive of printing, engraving, and binding, and it shall not be lawful for the Secretary of the Interior or the Superintendent of Census to incur any expense or obligation whatever, in respect to said census, in excess of that sum; and the sum of one million dollars is hereby appropriated, out of any money in the Treasury not otherwise appropriated, to be immediately available, and continue available until the completion of the Eleventh Census.

21. That the Secretary of the Interior is hereby authorized whenever he may think proper, to call upon any other Department or office of the Government, for information pertinent to the enumeration herein required.

special agents in Alaska, in addition to their salaries, a per diem allowance to cover all expenses of subsistence and transportation, not to exceed seven dollars per diem. Approved, March 19, 1890.

---

AN ACT to amend an act entitled "An act to provide for taking the Eleventh and subsequent censuses," approved March first, eighteen hundred and eighty-nine.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That section eighteen of an act entitled "An act to provide for taking the Eleventh and subsequent censuses," approved March first, eighteen hundred and eighty-nine, be amended by adding to the last line of said section eighteen, after the words "and actual necessary traveling expenses," the words "and a per diem allowance in lieu of subsistence of three dollars per day."

Approved, April 3, 1890.

---

AN ACT authorizing the registration of census mail matter.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That all mail matter, of whatever class, relative to the census and addressed to the Census Office, to the Superintendent of Census, his chief clerk, supervisors, or enumerators, and indorsed "Official business, Department of the Interior, Census Office, Registered," shall be transported free by registered mail; and if any person shall make use of any such mark of registration to avoid the payment of any registry fee on his private letter, package, or other matter in the mail, the person so offending shall be deemed guilty of a misdemeanor and subject to a fine of three hundred dollars, to be prosecuted in any court of competent jurisdiction.

Approved, May 21, 1890.

---

AN ACT amendatory of the act entitled "An act to provide for taking the Eleventh and subsequent censuses."

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That section seventeen of said act be so amended that the Superintendent of the Census shall require and obtain from the owners, proprietors or managers of every unincorporated express company, the same class of facts which by said section he is now obliged to require and obtain from the owners, proprietors or managers of every incorporated express company; and, further,

That section fifteen of the act entitled "An act to provide for taking the Eleventh and subsequent censuses" shall be so amended that the penalties provided for in said section shall apply in case the president, treasurer, secretary, agent or director, of an unincorporated express company shall willfully neglect or refuse to give true and complete answers to any inquiries authorized by the said act, if thereto requested by the Superintendent of the Census.

Approved, August 14, 1890.

---

AN ACT amendatory of an act entitled "An act to provide for the taking of the Eleventh Census."

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That sections fifteen and seventeen of the act entitled "An act to provide for taking of the Eleventh and subsequent censuses," approved March first, eighteen hundred and eighty-nine, be, and the same are hereby, amended so that the Superintendent of Census shall be required to obtain from every incorporated and unincorporated company, firm, association, or person engaged in any productive industry the information called for and specified in the general and special schedules heretofore approved or to be hereafter approved by the Secretary of the Interior. And every president, treasurer, secretary, agent, director, or other officer of every corporation engaged in such productive industry, and every person, firm, manager, or agent of unincorporated companies, and members of firms, associations, or individuals likewise engaged in such productive industry, from which or whom answers to any of the inquiries contained in the said schedules are herein required, who shall, if thereto requested by the Superintendent of Census, supervisor, enumerator, or special agent, or each or any of them, willfully neglect or refuse to give true and com-

## 950 HISTORY AND GROWTH OF THE UNITED STATES CENSUS.

plete answers to any inquiry or inquiries contained in the said schedules, or shall willfully give false information in respect thereto, shall be deemed guilty of a misdemeanor, and on conviction thereof shall be fined in a sum not exceeding ten thousand dollars, to which may be added imprisonment for a period not exceeding one year. And all acts or parts of acts in conflict herewith are hereby repealed.

Approved, July 6, 1892.

ACT APPROVED MARCH 3, 1899.

AN ACT to provide for taking the Twelfth and subsequent censuses.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That a census of the population, of deaths, and of the manufacturing, mechanical, and agricultural products of the United States shall be taken in the year nineteen hundred, and once every ten years thereafter.

SEC. 2. That there shall be established in the Department of the Interior a Census Office, the chief officer of which shall be denominated the Director of the Census. It shall be his duty to superintend and direct the taking of the Twelfth Census of the United States, in accordance with the laws relating thereto, and to perform such other duties as may be required of him by law. The Director of the Census shall be appointed, as soon as practicable after the passage of this act, by the President, by and with the advice and consent of the Senate, and shall receive an annual salary of six thousand dollars; and there shall also be an Assistant Director of the Census, to be appointed in like manner, who shall be an experienced practical statistician, and shall receive an annual salary of four thousand dollars: *Provided*, That nothing herein contained shall be construed to establish a census bureau permanent beyond the Twelfth Census.

SEC. 3. That during the absence of the Director of the Census, or when the office of Director shall become vacant, the Assistant Director shall perform the duties of the Director.

SEC. 4. That there shall also be in the Census Office, to be appointed by the Director thereof in the manner hereinafter specified, five chief statisticians, who shall be persons of known and tried experience in statistical work, at an annual salary of three thousand dollars each; a chief clerk, one disbursing clerk, and one geographer, at an annual salary of two thousand five hundred dollars each; five expert chiefs of division and two stenographers, at an annual salary of two thousand dollars each; ten clerks of class four, fifteen clerks of class three, twenty clerks of class two, and such number of clerks of class one, and of clerks, copyists, computers, and skilled laborers, with salaries at the rate of not less than six hundred dollars nor more than one thousand dollars per annum, to be appointed from time to time, as may be found necessary for the proper and prompt performance of the duties herein required to be undertaken. The disbursing clerk herein provided for shall, before entering upon his duties, give bond to the Secretary of the Treasury in the sum of fifty thousand dollars, which bond shall be conditioned that the said officer shall render a true and faithful account to the proper accounting officers of the Treasury, quarter-yearly, of all moneys and properties which shall be received by him by virtue of his office, with sureties to be approved by the Solicitor of the Treasury. Such bond shall be filed in the office of the Secretary of the Treasury, to be by him put in suit upon any breach of the conditions thereof.

The Director of the Census may also appoint one captain of the watch, at a salary of eight hundred and forty dollars per annum; two messengers, and such number of watchmen, assistant messengers, and laborers, at salaries of six hundred dollars each per annum; messenger boys, at salaries of four hundred dollars each per annum; and charwomen, at salaries of two hundred and forty dollars each per annum, as may be necessary to carry out the provisions of this act.

SEC. 5. That the chief clerk and the chief statisticians provided for in section four of this act, and all other employees authorized by this act below the Assistant Director of the Census, shall be appointed by the Director of the Census, subject to such examination as said Director may prescribe: *Provided*, That no examination shall be required in the case of enumerators or special agents, nor of employees below the grade of skilled laborers at six hundred dollars per annum. *And provided further*, That employees in existing branches of the departmental service, whose services may be specially desired by the Director of the Census, not exceeding six in all, may be transferred without examination, and at the end of such service the employees so transferred shall be eligible to appointment in any department without additional examination, when vacancies exist.

SEC. 6. That the collection of the information required by this act shall be made,

action of the Director of the Census, by supervisors, enumerators, and, as hereinafter provided.

At the Twelfth Census shall be restricted to inquiries relating to the mortality, to the products of agriculture and of manufacturing and establishments. The schedules relating to the population shall comprehend in the name, age, color, sex, conjugal condition, place of birth, birth of parents, whether alien or naturalized, number of years in the United States, occupation, months unemployed, literacy, school attendance, and value of farms and homes; and the Director of the Census may use his discretion in the construction and form and number of inquiries necessary to secure the information under the topics aforesaid. The mortality schedules shall comprehend the name, sex, color, age, conjugal condition, place of birth, and age of parents, occupation, cause and date of death, and, if born within the United States, the date of birth. The form and arrangement of the schedule and the sections necessary to secure the information required shall be in the discretion of the Director. The schedules relating to agriculture shall comprehend the following topics: Name of occupant of each farm, color of occupant, tenure, acreage, value of farm and improvements, acreage of different products, quantity and value of products, and number and value of live stock. All questions as to quantity and value of crops shall relate to the year ending December thirty-first next preceding the enumeration. The specific form and division of inquiries necessary to secure the information under the foregoing topics shall be in the discretion of the Director of the Census. The schedules of inquiries relating to the products of manufacturing and mechanical establishments shall embrace the name and location of each establishment, character of organization, whether individual, cooperative, or other form; date of commencement of operations; character of business or kind of goods manufactured; amount of capital invested; number of proprietors, firm members, copartners or officers, and the amount of their salaries; number of employees, and the amount of their wages; quantity and cost of materials used in manufactures; amount of miscellaneous expenses; quantity and value of products; time in operation during the census year; character and quantity of power used, and character and number of machines employed. The form and subdivision of inquiries necessary to secure the information under the foregoing topics relating to manufacturing and mechanical establishments shall be in the discretion of the Director of the Census. The information required shall be of and for the fiscal year of such corporations or establishments ending its termination nearest to and preceding the first of June, nineteen hundred and two. Whenever he shall deem it expedient, the Director of the Census may withhold the schedules for said manufacturing and mechanical statistics from the enumerators of several subdivisions in any or all cases, and may charge the collection of these statistics upon special agents, to be employed without respect to locality. In cities and states where an official registration of deaths is maintained the Director of the Census may, in his discretion, withhold the mortality schedule from the several enumerators within such cities or states, and may obtain the information required by this act through official records, paying therefor such sum of money as may be found necessary, not exceeding two cents for each death thus returned. The Director of the Census is also authorized and directed to make suitable provisions for enumeration of the population and products of Alaska and the Hawaiian Islands, which purpose he may employ supervisors and enumerators or special agents as he may deem necessary. The only volumes that shall be prepared and published in connection with the Twelfth Census, except the Special Reports hereinafter provided, shall relate to population, mortality and vital statistics, the products of agriculture, and of manufacturing and mechanical establishments, as above mentioned, and shall be designated as and constitute the Census Reports, which said reports shall be published not later than the first day of July, nineteen hundred and two. The report upon population shall include a series of separate tables for each state, giving for each county the number of male persons below and above the age of twenty-one years, their color, whether native or foreign born, whether naturalized or not, and whether literate or illiterate. All terms expressing weight, measure, distance, or value shall be expressed in the terms of the English language as spoken in this country.

SEC. 8. That after the completion and return of the enumeration and of the work under the schedules relating to the products of agriculture and to manufacturing and mechanical establishments provided for in section seven of this act, the Director of the Census is hereby authorized to collect statistics relating to special classes, including the insane, feeble-minded, deaf, dumb, and blind; to crime, pauperism, and evictions, including prisoners, paupers, juvenile delinquents, and inmates of reformatory and reformatory institutions; to deaths and births in registration areas; to social statistics of cities; to public indebtedness, valuation, taxation, and expendi-

the Census, and any vacancy thus caused or otherwise occurring during the progress of the enumeration may be filled by the Director of the Census.

SEC. 11. That each supervisor of census shall, upon the completion of his duties to the satisfaction of the Director of the Census, receive the sum of one hundred and twenty-five dollars, and in addition thereto, in thickly settled districts, one dollar for each thousand or majority fraction of a thousand of the population enumerated in such district, and in sparsely settled districts one dollar and forty cents for each thousand or majority fraction of a thousand of the population enumerated in such district; such sums to be in full compensation for all services rendered and expenses incurred by him, except that in serious emergencies arising during the progress of the enumeration in his district, or in connection with the reenumeration of any subdivision, he may, in the discretion of the Director of the Census, be allowed actual and necessary traveling expenses and an allowance in lieu of subsistence not exceeding three dollars per day during his necessary absence from his usual place of residence, and that an appropriate allowance for clerk hire may be made when deemed necessary by the Director of the Census: *Provided*, That in the aggregate no supervisor shall be paid less than the sum of one thousand dollars. The designation of the compensation per thousand, as provided in this section, shall be made by the Director of the Census at least one month in advance of the date fixed for the commencement of the enumeration.

SEC. 12. That each enumerator shall be charged with the collection, in his subdivision, of facts and statistics required by the population schedule, and such other schedules as the Director of the Census may determine shall be used by him in connection with the census, as provided in section seven of this act. It shall be the duty of each enumerator to visit personally each dwelling house in his subdivision, and each family therein, and each individual living out of a family in any place of abode, and by inquiry made of the head of each family, or of the member thereof deemed most credible and worthy of trust, or of such individual living out of a family, to obtain each and every item of information and all particulars required by this act as of date June first of the year in which the enumeration shall be made. And in case no person shall be found at the usual place of abode of such family, or individual living out of a family, competent to answer the inquiries made in compliance with the requirements of this act, then it shall be lawful for the enumerator to obtain the required information, as nearly as may be practicable, from the family or families or person or persons living nearest to such place of abode; and it shall be the duty of each enumerator to forward the original schedules, duly certified, to the supervisor of census of his district as his returns under the provisions of this act; and in the event of discrepancies or deficiencies being discovered in his said returns he shall use all diligence in correcting or supplying the same. In case the subdivision assigned to any enumerator embraces all or any part of any incorporated borough, village, town, or city, and also other territory not included within the limits of such incorporated borough, village, town, or city, or either, it shall be the duty of the enumerator of such subdivision to clearly and plainly distinguish and separate, upon the population schedules, the inhabitants of all or any part of such borough, village, town, or city, as may be embraced in the subdivision assigned to such enumerator, from the inhabitants of the territory not included therein. No enumerator shall be deemed qualified to enter upon his duties until he has received from the supervisor of census of the district to which he belongs a commission, under his hand, authorizing him to perform the duties of an enumerator, and setting forth the boundaries of the subdivision within which such duties are to be performed by him.

SEC. 13. That the subdivision assigned to any enumerator shall not exceed four thousand inhabitants as near as may be, according to estimates based on the preceding census or other reliable information, and the boundaries of all subdivisions shall be clearly described by civil divisions, rivers, roads, public surveys, or other easily distinguished lines: *Provided*, That enumerators may be assigned for the special enumeration of institutions, when desirable, without reference to the number of inmates.

SEC. 14. That any supervisor of census may, with the approval of the Director of the Census, remove any enumerator in his district and fill the vacancy thus caused or otherwise occurring. Whenever it shall appear that any portion of the enumeration and census provided for in this act has been negligently or improperly taken, and is by reason thereof incomplete or erroneous, the Director of the Census may cause such incomplete and unsatisfactory enumeration and census to be amended or made anew under such methods as may, in his discretion, be practicable.

SEC. 15. That the Director of the Census may authorize and direct supervisors of census to employ interpreters to assist the enumerators of their respective districts in

three years and be fined not exceeding eight hundred dollars; or if he shall willfully and knowingly make a false certificate or a fictitious return, he shall be guilty of a misdemeanor, and upon conviction of either of the last-named offenses he shall be fined not exceeding five thousand dollars and be imprisoned not exceeding two years.

SEC. 22. That each and every person more than twenty years of age belonging to any family residing in any enumeration district or subdivision, and in case of the absence of the heads and other members of any such family, then any representative of such family, shall be, and each of them hereby is, required, if thereto requested by the Director, supervisor, or enumerator, to render a true account, to the best of his or her knowledge, of every person belonging to such family in the various particulars required, and whoever shall willfully fail or refuse to render such true account shall be guilty of a misdemeanor, and upon conviction thereof shall be fined in a sum not exceeding one hundred dollars. And every president, treasurer, secretary, director, agent, or other officer of every corporation, and every establishment of productive industry, whether conducted of a corporate body, limited liability company, or by private individuals, from which answers to any of the schedules, inquiries, or statistical interrogatories provided for by this act are herein required, who shall, if thereto requested by the Director, supervisor, enumerator, or special agent, willfully neglect or refuse to give true and complete answers to any inquiries authorized by this act, or shall willfully give false information, shall be guilty of a misdemeanor, and upon conviction thereof shall be fined not exceeding ten thousand dollars, to which may be added imprisonment for a period not exceeding one year.

SEC. 23. That all fines and penalties imposed by this act may be enforced by indictment or information in any court of competent jurisdiction.

SEC. 24. That the Director of the Census may authorize the expenditure of necessary sums for the traveling expenses of the officers and employees of the Census Office and the incidental expenses essential to the carrying out of this act, as herein provided for, and not otherwise, including the rental of sufficient quarters in the District of Columbia and the furnishing thereof and the maintenance of the printing outfit in the Census Office.

SEC. 25. That the Director of the Census is hereby authorized to print and bind in the Census Office such blanks, circulars, envelopes, and other items as may be necessary; and to print, publish, and distribute from time to time bulletins and reports of the preliminary and other results of the various investigations required by this act.

SEC. 26. That in case the Director of the Census deems it expedient he may contract for the use of electrical or mechanical devices for tabulating purposes: *Provided*, That in such case due notice shall be given to the public, and no system of tabulation shall be adopted until after a practical test of its merits in competition with other systems which may be offered.

SEC. 27. That all mail matter, of whatever class, relative to the census and addressed to the Census Office, the Director of the Census, Assistant Director, chief clerk, supervisors, enumerators, or special agents, and indorsed "Official business, Department of the Interior, Census Office," shall be transmitted free of postage, and by registered mail if necessary, and so marked: *Provided*, That if any person shall make use of such indorsement to avoid the payment of postage or registry fee on his or her private letter, package, or other matter in the mail, the person so offending shall be guilty of a misdemeanor and subject to a fine of three hundred dollars, to be prosecuted in any court of competent jurisdiction.

SEC. 28. That the Secretary of the Interior, on request of the Director of the Census, is hereby authorized to call upon any other department or office of the Government for information pertinent to the work herein provided for.

SEC. 29. That such records, books, and files as relate to preceding censuses, and the printing-office outfit used in the Eleventh Census, and such furniture and property of whatever nature used at the Eleventh Census as may be necessary in conducting the work of the Census Office and can be spared from present uses, shall be transferred to the custody and control of the Census Office created by this act. The said furniture and property shall be inventoried by the proper officers of the Department of the Interior when such transfer is made, and a copy of the inventory filed and preserved in the office of the Secretary of the Interior and of the Director of the Census.

SEC. 30. That upon the request of the governor of any state or territory, or the chief officer of any municipal government, the Director of the Census shall furnish such governor or municipal officer with a copy of so much of the population returns as will show the names, with the age, sex, color, or race, and birthplace only of all persons enumerated within the territory in the jurisdiction of such government, upon payment of the actual cost of making such copies; and the amounts so received shall

## APPENDIX F.

### REFERENCES TO THE UNITED STATES CENSUS IN PRESIDENTS' MESSAGES.

October 25, 1791.—President Washington, in his third annual address to Congress, reported "the completion of the census of the inhabitants, for which provision was made by law." (*Messages and Papers of the Presidents*, vol. 1, p. 106.)

March 3, 1792.—President Washington, in a special message to Congress, transmitted a copy of a return of the number of inhabitants of South Carolina, as made to him by the marshal of that district. (*Idem*, vol. 1, p. 116.)

April 5, 1792.—President Washington sent a message to the House of Representatives vetoing an act entitled "An act for an apportionment of Representatives among the several states according to the first enumeration." (*Idem*, vol. 1, p. 124.)

December 8, 1801.—President Jefferson, in his first annual message to Congress, laid before them "the results of the census lately taken of our inhabitants, to a conformity with which we are now to reduce the ensuing ratio of representation and taxation," and made allusion to the rapid increase of the population. (*Idem*, vol. 1, p. 327.)

December 23, 1801.—President Jefferson, in a special message to Congress, transmitted another return of the census of the state of Maryland, just received from the marshal of that state, "which he desires may be substituted as more correct than the one first returned by him." (*Idem*, vol. 1, p. 333.)

February 28, 1811.—President Madison, in a message to Congress, recommended its attention to a report of the Secretary of State relating to deficiencies in the returns of the census. (*Idem*, vol. 10, p. 39.)

March 13, 1811.—President Madison, in a message to Congress, forwarded to it the result of the census lately taken of the inhabitants of the United States, with a letter from the Secretary of State relating thereto. (*Idem*, vol. 10, p. 40.)

December 6, 1825.—President J. Q. Adams, in his first annual message to Congress, called attention to the results of the fourth census, and to the progress of the nation as shown thereby. (*Idem*, vol. 2, p. 314.)

December 2, 1828.—President J. Q. Adams, in his fourth annual message to Congress, called attention to their duty to make provision for taking the fifth census, and made suggestions, in connection therewith, that the enumeration of the population be commenced earlier in the year than the 1st of August; that more detailed data concerning the ages of the people be collected than in prior censuses; and that the imperfections in preceding census enumerations were largely due to the inadequateness of the compensation allowed to marshals and their assistants in taking them. (*Idem*, vol. 2, p. 420.)

December 8, 1829.—President Jackson, in his first annual message to Congress, called attention to the necessity of early provision for taking the census, in order to complete the work within a convenient time. (*Idem*, vol. 2, p. 461.)

December 15, 1830.—President Jackson, in a special message to Congress, reported that several marshals had been unable to complete the enumeration of inhabitants within the time prescribed by law, and suggested legislation allowing further time for making returns. (*Idem*, vol. 2, p. 530.)

December 7, 1831.—President Jackson, in a special message to Congress, transmitted two letters from the Secretary of State accompanied by statements showing the progress made in the work of the fifth census, and by a printed copy of the revision of the statements theretofore transmitted of all former enumerations of the population of the United States and their territories. (*Idem*, vol. 2, p. 559.)

December 3, 1838.—President Van Buren, in his second annual message to Congress, recommended the adoption of the necessary provisions for taking the sixth census, and suggested "whether the scope of the measure might not be usefully extended by causing it to embrace authentic statistical returns of the great interests

pecially intrusted to or necessarily affected by the legislation of Congress." (Idem, vol. 3, p. 497.)

February 28, 1839.—President Van Buren, in a special message to Congress, transmitted a communication from the Secretary of War "respecting the importations of officers who may be employed to take the next general census to return of the names and ages of pensioners." (Idem, vol. 3, p. 527.)

December 24, 1839.—President Van Buren, in a special message to Congress, transmitted "a report from the Secretary of State on the subject of the law proposed for taking the sixth census of the United States." (Idem, vol. 3, p. 558.)

June 1, 1841.—President Tyler, in a special-session message to Congress, reported the increase of population as shown by the sixth census. (Idem, vol. 4, p. 159.)

December 7, 1841.—President Tyler, in his first annual message to Congress, reported that the Secretary of State would report to Congress the progress of the work of the sixth census, and reported the population of the United States, as shown by the sixth census. (Idem, vol. 4, p. 81.)

December 25, 1842.—President Tyler, in a special message to the House of Representatives, announced his approval of "An act for an apportionment of Representatives among the several states according to the sixth census," with an exposition of his reasons for such approval. (Idem, vol. 4, p. 159.)

December 4, 1849.—President Taylor, in his first annual message to Congress, reported that the census board had completed its duties in preparing forms and schedules for the seventh census, and that "it now rests with Congress to enact a law" for the said census. (Idem, vol. 5, p. 22.)

December 2, 1850.—President Fillmore, in his first annual message to Congress, reported the appointment of a superintendent of census, and the adoption of measures for taking the seventh census, and suggested the propriety of making legal provision for the publication of abstracts of the census returns. (Idem, vol. 5, p. 86.)

December 2, 1851.—President Fillmore, in his second annual message to Congress, stated that the Superintendent of Census is diligently employed in classifying and tabulating the data of the seventh census, and expressed the earnest hope "that the progress will lose no time in making the appropriations necessary to complete the publications and to publish the results in a style worthy of the results and of our national character." (Idem, vol. 5, pp. 129-130.)

December 6, 1852.—President Fillmore, in his third annual message to Congress, reported that the larger portion of the work of the seventh census had been finished and that the apportionment of Representatives had been made by the Secretary of the Interior, and suggested that it devolved upon Congress to provide for the publication of the results of the census. (Idem, vol. 5, p. 172.)

December 5, 1853.—President Pierce, in his first annual message to Congress, referred to the successive decennial censuses, and discussed the probabilities of the future growth of population. (Idem, vol. 5, pp. 223-224.)

January 21, 1859.—President Buchanan, in special messages to the Senate and the House of Representatives, transmitted "a digest of the statistics of manufactures according to the returns of the seventh census." (Idem, vol. 5, pp. 535-536.)

December 3, 1861.—President Lincoln, in his first annual message to Congress, alluded to the increase of population as shown by the last (eighth) census, and predicted the future growth of population. (Idem, vol. 6, p. 58.)

December 1, 1862.—President Lincoln, in his second annual message to Congress, made use of census statistics in support of his proposition to make compensation to emancipated slaves. (Idem, vol. 6, pp. 138-139.)

December 6, 1869.—President Grant, in his first annual message to Congress, suggested the necessity of early Congressional action in order to make the ninth census more complete and perfect than previous censuses. (Idem, vol. 7, p. 42.)

December 5, 1870.—President Grant, in his second annual message to Congress, reported progress in the work of the ninth census. (Idem, vol. 7, p. 112.)

December 4, 1871.—President Grant, in his third annual message, stated that the report of the Secretary of the Interior, submitted therewith, would give "a full information collected and prepared for publication in regard to the census taken during the year 1870." (Idem, vol. 7, p. 152.)

December 2, 1872.—President Grant, in his fourth annual message to Congress, reported the near completion of the work of the ninth census, and submitted a commendation that a national census be taken in 1875, giving reasons therefor. (Idem, vol. 7, p. 202.)

December 1, 1873.—President Grant, in his fifth annual message to Congress, reported the completion of the work of the ninth census, and renewed recom-

us for an appropriation to defray the expenses of the census office. (Idem, vol. 8, p. 103.)

July 16, 1882.—President Arthur, in a special message to Congress, submitted a recommendation by the Secretary of the Interior for an appropriation to complete the work of the tenth census. (Idem, vol. 8, p. 108.)

July 5, 1883.—President Arthur, in a special message to Congress, submitted a recommendation from the Secretary of the Interior for an appropriation to complete the work of the tenth census. (Idem, vol. 8, p. 150.)

March 1, 1890.—President Harrison, in his second annual message to Congress, reported the completion of the enumeration of the population of the United States under the provisions of the act of March 3, 1889. (Idem, vol. 9, p. 118.)

March 9, 1891.—President Harrison, in his third annual message to Congress, reported the progress of the work of the eleventh census, and suggested the necessity of prompt appropriations. (Idem, vol. 9, p. 205.)

March 6, 1892.—President Harrison, in his fourth annual message to Congress, reported a comparison of certain statistics shown by the censuses of 1880 and 1890. (Idem, vol. 9, p. 306.)

March 3, 1894.—President Cleveland, in his second annual message to Congress, reported the progress of the work of the eleventh census, gave an account of the results in connection therewith, and described the general plan of the work. (Idem, vol. 9, p. 546.)

March 5, 1898.—President McKinley, in his second annual message to Congress, urged upon it the importance of early legislation providing for the taking of the eleventh census, as being necessary in view of the large amount of work which must be performed in the preparation of the schedules preparatory to the enumeration of the population. (Idem, vol. 10, p. 198.)



## APPENDIX G.

### REFERENCES TO THE UNITED STATES CENSUS IN CERTAIN GOVERNMENT PUBLICATIONS.

[This appendix contains the references to the United States census in the Government publications named, so far as generally shown by the indexes thereto. It probably represents an approximate complete statement, but it is not the result of an entirely original examination of the publications.]

November 1, 1791.—Senate report on census of 1790. (Journal of the Senate, 2d Cong., 1st sess., pp. 329, 330.)

December 18, 1821.—J. Q. Adams, Secretary of State, transmits letter and documents relating to the fourth census. (Ex. papers, 17th Cong., 1st sess., vol. 1, No. 4.)

January 17, 1832.—Edw. Livingston, Secretary of State, transmits copies of instructions, regulations, and forms, in taking fifth census. (House Ex. Docs., 22d Cong., 1st sess., vol. 2, No. 58.)

January 28, 1832.—Edw. Livingston, Secretary of State, transmits information in regard to erroneous returns of slaves in fifth census. (House Ex. Docs., 22d Cong., 1st sess., vol. 3, No. 84.)

May 24, 1832.—Edw. Livingston, Secretary of State, transmits a statement concerning errors in fifth census. (House Ex. Docs., 22d Cong., 1st sess., vol. 6, No. 144.)

February 21, 1839.—J. L. Edwards, Commissioner of Pensions, transmits communication urging importance of securing returns of names and ages of pensioners in sixth census. (Ex. Docs., 25th Cong., 3d sess., vol. 6, No. 239.)

December 24, 1839.—John Forsyth, Secretary of State, transmits details of methods of sixth census enumeration. (Senate Docs., 26th Cong., 1st sess., vol. 2, No. 10.)

February 24, 1841.—John Forsyth, Secretary of State, reports progress made toward completion of sixth census. (Senate Docs., 26th Cong., 2d sess., vol. 4, No. 11.)

June 18, 1842.—Daniel Webster, Secretary of State, transmits estimate of appropriation required for distribution of sixth census. (House Docs., 27th Cong., 2d sess., vol. 5, No. 245.)

May 1, 1844.—J. C. Calhoun, Secretary of State, transmits report as to errors in the sixth census. (House Docs., 27th Cong., 2d sess., vol. 5, No. 245.)

May 16, 1844.—Memorial of "American Statistical Association," representing that various and gross errors have been discovered in the printed edition of the sixth census, and setting forth, at large, what they deem those errors to be. (Journal of the House, 28th Cong., 1st sess., pp. 932, 1170.)

Several memorials were presented during the first session of the Twenty-eighth Congress (1843-44) on the same subject as above. (Journal of the House.)

June 17, 1844.—Representative Pratt transmits report as to errors in the sixth census; inquiry into morals of colored people, impracticable racial distinction and slavery. (House Reports, 28th Cong., 1st sess., vol. 3, No. 579.)

December 10, 1844.—Memorial of "American Statistical Association," praying the correction of certain errors in the sixth census. (Journal of the Senate, 27th Cong., 2d sess., p. 27.)

February 27, 1845.—Senator Choate transmits report concerning errors in sixth census. (Senate Docs., 28th Cong., 2d sess., vol. 5, No. 149.)

March 9, 1848.—Memorial of "New York Historical Society," praying the adoption of certain measures in relation to census of 1850. (Journal of the Senate, 30th Cong., 1st sess., p. 207.)

May 30, 1848.—Petition of citizens of Carson, Wisconsin, praying that census of 1850 may show the number of freeholders in each state and territory. (Journal of the Senate, 30th Cong., 1st sess., pp. 399, 391.)

January —, 1849. Nahum Chittenden and Jesse Chittenden make suggestions as to proper scope of census work, and how it should be conducted. (Senate Misc. Docs., 30th Cong., 2d sess., vol. 1, No. 64.)

January 23, 1849.—Memorial of "New York State Agricultural Society," praying the adoption of measures for collecting agricultural statistics in census of 1850. (Journal of the Senate, 30th Cong., 2d sess., p. 141.)

December 27, 1849.—Memorial of Luther Bradish et al., praying the adoption of measures for procuring certain information in census of 1850, important to commercial, political, and scientific purposes. (Journal of the Senate, 31st Cong., 1st sess., pp. 31, 60.)

January 8, 1850.—Petition of William W. Smith et al., praying that provision be made for obtaining certain statistical information in census of 1850. (Journal of the Senate, 31st Cong., 1st sess., p. 62.)

Several petitions were presented to the Senate at the second session of the Thirty-first Congress (1850-51) from assistant marshals in New York praying for additional compensation. (Journal of the Senate.)

November 30, 1850.—J. C. G. Kennedy, Superintendent of Census, makes report as to disbursement of census fund. (Senate Ex. Docs., 31st Cong., 2d sess., vol. 1, No. 1, part 1, pp. 443, 444.)

December 1, 1851.—J. C. G. Kennedy, Superintendent of Census, makes report relative to the taking of the seventh census. (House Ex. Docs., 32d Cong., 1st sess., vol. 2, part 3, pp. 201-246.)

December 1, 1851.—J. C. G. Kennedy, Superintendent of Census, in his report recommends the binding and careful preservation of original returns; also the recording, alphabetically, of the name of every adult male citizen or head of family, with occupation and reference to schedule in which it may be found. (House Ex. Docs., 32d Cong., 1st sess., vol. 2, part 3, p. 203.)

January 16, 1852.—Resolution of New York legislature in relation to the publication of Census Compendium. (House Mis. Docs., 32d Cong., 1st sess., vol. 1, No. 17.)

May —, 1852.—American Medical Association petitions for the printing and distribution among members of the medical profession of a large edition of "Medical Statistics." (House Ex. Docs., 33d Cong., 2d sess., vol. 1, part 1, pp. 627, 628.)

August 24, 1852.—A. H. H. Stuart, Secretary of the Interior, transmits report of Superintendent of Census concerning expenditures for the seventh census. (Senate Ex. Docs., 32d Cong., 1st sess., vol. 10, No. 111.)

December 1, 1852.—J. C. G. Kennedy, Superintendent of Census, transmits report submitting statistics, estimates, and suggestions in regard to the seventh census. (House Ex. Docs., 32d Cong., 2d sess., vol. 1, No. 1, part 1, pp. 469-577.)

February 3, 1853.—Representative Gorman transmits report in regard to printing and binding seventh census. (House Reports, 32d Cong., 2d sess., vol. 1, No. 3.)

December 19, 1853.—R. McClelland, Secretary of the Interior, transmits report of Superintendent De Bow on the work of the census of 1850. (Senate Docs., 33d Cong., 1st sess., vol. 4, No. 9.)

December 1, 1854.—J. B. De Bow, Superintendent of Census, transmits report in regard to publication of Compendium, etc. (House Ex. Docs., 33d Cong., 2d sess., vol. 1, No. 1, part 1, pp. 626-629.)

December 1, 1854.—J. B. De Bow, Superintendent of Census, repeats a previous recommendation, that the full mortality and manufacturing tables of towns and counties be published. (House Ex. Docs., 33d Cong., 2d sess., vol. 1, part 1, p. 626.)

December 2, 1858.—Jacob Thompson, Secretary of the Interior, suggests the necessity of an early appropriation for census of 1860, and recommends adherence to law of May 23, 1850. (House Ex. Docs., 35th Cong., 2d sess., vol. 2, part 1, pp. 92, 93.)

January 4, 1859.—Jacob Thompson, Secretary of the Interior, transmits statement of the expenses of the seventh census. (Ex. Docs., 35th Cong., 2d sess., vol. 4, No. 19.)

December 1, 1859.—Jacob Thompson, Secretary of the Interior, says that law of 1850 should be adhered to. (Report of Department of the Interior, 1859-60, p. 107.)

February 14, 1860.—Memorial from New York Chamber of Commerce, praying that provision be made for collecting commercial statistics in census of 1860. (Journal of the Senate, 36th Cong., 1st sess., p. 149.)

February 14, 1860.—Memorial of the New York Chamber of Commerce, praying the collection of commercial statistics in taking the census. (Senate Mis. Docs., 36th Cong., 1st sess., vol. 1, No. 4.)

November 30, 1860.—Jacob Thompson, Secretary of the Interior, repeats a previous recommendation for the establishment of a "Bureau of Statistics," for the annual collection of data regarding internal traffic, and products of agriculture, manufactures, and mines. (Report of Department of the Interior, 1860-61, p. 40.)

December 4, 1860.—J. C. G. Kennedy, Superintendent of Census, reports plan of taking the census, regulations, instructions, etc. (Senate Docs., 36th Cong., 2d sess., vol. 1, No. 1, pp. 501-504.)

August 5, 1861.—Caleb B. Smith, Secretary of the Interior, transmits report on payment of deputy marshals. (House Ex. Docs., 37th Cong., 1st sess., No. 18.)

November 30, 1861.—Caleb B. Smith, Secretary of the Interior, recommends the immediate establishment of a "Bureau of Agriculture and Statistics," to make annual reports concerning agriculture, manufactures, and commerce, upon which will devolve the charge of the census, etc. (Report of Department of the Interior, 1861-62, pp. 451, 452.)

April 16, 1862.—Representative E. P. Walton transmits report in relation to index to census returns. (House Reports, 37th Cong., 2d sess., vol. 3, No. 80.)

November 29, 1862.—Caleb B. Smith, Secretary of the Interior, repeats his recommendation for the establishment of a statistical bureau. (House Ex. Docs., 37th Cong., 3d sess., vol. 2, p. 17.)

December 5, 1863.—J. P. Usher, Secretary of the Interior, urges the need of a National Bureau of Statistics, charged with the duty of taking the census, in addition to the regular collection of other statistics. (House Ex. Docs. 38th Cong., 1st sess., vol. 3, p. xix.)

December 5, 1864.—J. P. Usher, Secretary of the Interior, repeats his recommendation for a National Bureau of Statistics. (House Ex. Docs., 38th Cong., 2d sess., vol. 5, pp. 17, 18.)

December 4, 1865.—James Harlan, Secretary of the Interior, suggests the expediency of providing means to enable the making of annual reports on population, manufactures, and other material interests. (House Ex. Docs., 39th Cong., 1st sess., vol. 2, pp. xi, xii.)

February 24, 1869.—Petition of Southern Members of Congress, praying payment to loyal citizens of states lately in rebellion for services in taking the United States census of 1860. (Journal of the Senate, 40th Cong., 3d sess., p. 333.)

March 26, 1869.—Memorial of life-insurance companies, praying for accurate mortuary statistics. (House Mis. Docs., 41st Cong., 1st sess., vol. 1, No. 28.)

April 1, 1869.—Dr. F. B. Hough recommends certain amendments to existing census law. (House Mis. Docs., 41st Cong., 1st sess., vol. 1, No. 33.)

November 15, 1869.—J. D. Cox, Secretary of the Interior, suggests necessity of early Congressional action in regard to census of 1870, etc. (House Ex. Docs., 41st Cong., 2d sess., vol. 3, pp. xii, xiii.)

January 10, 1870.—Memorial of the American Academy of Arts and Sciences in favor of the adoption of the plan for the United States census as proposed by the committee of the House of Representatives. (Journal of the Senate, 41st Cong., 2d sess., p. 71.)

January 18, 1870.—Representative Garfield transmits report and recommendations concerning census legislation. (House Reports, 41st Cong., 2d sess., vol. 1, No. 3.)

January 24, 1870.—Memorial of American Statistical Association, praying the passage of the pending bill providing for taking the ninth census. (Journal of the Senate, 41st Cong., 2d sess., p. 133.)

During the third session of the Forty-first Congress (1870-71) several petitions were presented for and against increasing the compensation of assistant marshals. (Journal of the Senate.)

During the first session of the Forty-second Congress (1871) several petitions were presented for increasing the compensation of assistant marshals. (Journal of the Senate.)

February 7, 1870.—Citizens of Connecticut pray that census may include net incomes derived from every business, profession, or employment. (Senate Mis. Docs., 41st Cong., 2d sess., No. 41.)

February 22, 1870.—J. D. Cox, Secretary of the Interior, transmits draft of bill amendatory of existing census law. (House Ex. Docs., 41st Cong., 2d sess., vol. 7, No. 161.)

April 7, 1870.—J. D. Cox, Secretary of the Interior, transmits statement concerning the advisability of dispensing with certain census returns. (Senate Ex. Docs., 41st Cong., 2d sess., vol. 2, No. 79.)

June 27, 1870.—W. T. Otto, Acting Secretary of the Interior, recommends an appropriation for the ninth census. (House Ex. Docs., 41st Cong., 2d sess., vol. 12, No. 299.)

December 20, 1870.—W. T. Otto, Acting Secretary of the Interior, transmits report, giving estimated cost of additional work on the census. (House Ex. Docs., 41st Cong., 2d sess., vol. 7, No. 29.)

January 14, 1871.—F. A. Walker, Superintendent of Census, transmits report showing the average per diem compensation of 1,180 assistant marshals of ninth census. (House Mis. Docs., 41st Cong., 3d sess., vol. 1, No. 31.)

February 16, 1871.—Columbus Delano, Secretary of the Interior, transmits letter

from Superintendent of Census, on the necessity of an appropriation for the expenses of the ninth census. (House Ex. Docs., 41st Cong., 3d sess., vol. 12, No. 134.)

October 31, 1871.—Columbus Delano, Secretary of the Interior, recommends a general revision of law of 1850, for reasons stated, as presented by F. A. Walker, and recommends publication of a compendium. (Report of Department of the Interior, 1871-72, vol. 1, pp. 18, 19.)

February 28, 1872.—Columbus Delano, Secretary of the Interior, transmits information in relation to C. W. Seaton's tallying machine. (House Ex. Docs., 42d Cong., 2d sess., vol. 10, No. 164.)

October 31, 1872.—Columbus Delano, Secretary of the Interior, recommends publication of a statistical atlas, and that a national census be taken in 1875. (Report of Department of the Interior, 1872-73, vol. 1, pp. 15, 16.)

December 5, 1872.—B. R. Cowen, Acting Secretary of the Interior, transmits letter from Superintendent of Census, asking for an appropriation. (Senate Ex. Docs., 42d Cong., 3d sess., vol. 1, No. 4.)

January 15, 1873.—B. R. Cowen, Acting Secretary of the Interior, transmits letter from Superintendent of Census in regard to unpaid claims of persons unable to prove their loyalty, for services in taking eighth census. (Senate Ex. Docs., 42d Cong., 3d sess., vol. 1, No. 27.)

October 31, 1873.—Columbus Delano, Secretary of the Interior, renews recommendation for a national census in 1875. (Report of Department of the Interior, 1873-74, vol. 1, p. xxii.)

January 30, 1874.—F. A. Walker, Superintendent of Census, presents argument in favor of census in 1875. (Report of Department of the Interior, 1874-75, vol. 1, p. 724.)

October 31, 1874.—Columbus Delano, Secretary of the Interior, renews recommendation for a national census in 1875. (Report of Department of the Interior, 1874-75, vol. 1, p. xxiii.)

January 15, 1878.—J. D. Whitney submits suggestions in regard to mining statistics. (House Ex. Docs., 45th Cong., 3d sess., vol. 9, p. 853.)

January 15, 1878.—Memorial of Mary F. Eastman et al., praying that the tenth census may contain a just enumeration of women as laborers and producers. (Senate Mis. Docs., 45th Cong., 2d sess., vol. 2, No. 84.)

January 15, 1878.—Memorial of the "Association for the Advancement of Women," praying that the tenth census may contain a just enumeration of women as laborers and producers; also of wages of women; also of causes of pauperism and crime; and that women may be employed to collect vital statistics concerning women and children. (Journal of the Senate, 45th Cong., 2d sess., p. 702.)

January 17, 1878.—F. A. Walker, Superintendent of Census, submits recommendations for various changes in census legislation. (House Ex. Docs., 45th Cong., 3d sess., vol. 9, p. 840.)

November 1, 1878.—Carl Schurz, Secretary of the Interior, refers to F. A. Walker's report (as above) in regard to new legislation. (House Ex. Docs., 45th Cong., 3d sess., vol. 9, p. xxxi.)

December 17, 1878.—Interview of F. A. Walker with select committees on subject of census. (Senate Mis. Docs., 45th Cong., 3d sess., vol. 1, No. 26.)

January 13, 1879.—Petition of George E. Isbell that in the census of 1880 such vital statistics be taken as will definitely settle all controversy as to the effects upon offspring of consanguineous marriages. (Journal of the House, 45th Cong., 3d sess., p. 164.)

During the second session of the Forty-sixth Congress (1879-80) several petitions were filed, praying that the Superintendent of Census be required to publish, in advance, the statistics of acreage and production of cotton in each county and state. (Journal of the House.)

June 21, 1879.—J. C. G. Kennedy, a former Superintendent of Census, makes suggestions in relation to law for taking the tenth census. (Senate Mis. Docs., 46th Cong., 1st sess., vol. 1, No. 45.)

November 15, 1879.—F. A. Walker, Superintendent of Census, reports operations of census bureau for year ending June 30, 1879. (House Ex. Docs., 46th Cong., 2d sess., vol. 10, No. 1, part 5, pp. 307-320.)

November 15, 1879.—Carl Schurz, Secretary of the Interior, transmits recommendations as to the franking privilege, and as to dispensing with certain census interrogatories. (House Ex. Docs., 46th Cong., 2d sess., vol. 9, p. 49.)

May 27, 1880.—Senator G. H. Pendleton offers resolution in regard to removal of supervisors. (Senate Mis. Docs., 46th Cong., 2d sess., vol. 2, No. 96.)

June 5, 1880.—President Rutherford B. Hayes transmits special message in regard to removal of supervisors. (Senate Ex. Docs., 46th Cong., 2d sess., vol. 5, No. 203.)

June 15, 1880.—Senator G. H. Pendleton transmits report in regard to removal of supervisors. (Senate Reports, 46th Cong., 2d sess., vol. 7, No. 732.)

November 1, 1880.—Carl Schurz, Secretary of the Interior, refers to necessity for early publication of census reports, and to Superintendent's recommendation for their publication by special contract. (House Ex. Docs., 46th Cong., 3d sess., vol. 9, p. 61.)

January —, 1881.—Petitions of census enumerators in Kentucky, New York, and New Jersey were filed, praying for increased compensation. (Journal of the House, 46th Cong., 3d sess., pp. 138, 261, 277.)

January 18, 1881.—Carl Schurz, Secretary of the Interior, writes letter in regard to the census. (Senate Ex. Docs., 46th Cong., 3d sess., vol. 1, No. 22.)

January 21, 1881.—Carl Schurz, Secretary of the Interior, transmits letter of Superintendent of Census in regard to the execution of the tenth census law. (Senate Ex. Docs., 46th Cong., 3d sess., vol. 1, No. 28.)

January 24, 1882.—Petition of volunteer employees in the census office, praying additional compensation. (Journal of the Senate, 47th Cong., 1st sess., p. 207.)

November 1, 1882.—H. M. Teller, Secretary of the Interior, invites attention to the advisability of further legislation in regard to interdecennial state censuses. (House Ex. Docs., 47th Cong., 2d sess., vol. 10, p. xxxix.)

During the first session of the Forty-seventh Congress (1881-82) several petitions were filed by census supervisors, praying additional compensation. (Journal of the Senate.)

March 4, 1886.—Letter from Secretary of the Interior relative to binding the schedules of the second, third, fourth, and tenth censuses. (Senate Ex. Docs., 49th Cong., No. 86.)

Report from Committee on Printing in relation to above subject. (House Reports, 49th Cong., No. 2206.)

March 22, 1888.—Report from the select committee on eleventh census in relation to said census. (House Reports, 50th Cong., 1st sess., No. 2810.)

April 3, 1888.—Report from the select committee on eleventh census in relation to said census. (House Reports, 50th Cong., 1st sess., No. 1499.)

May 3, 1888.—Petition of A. S. Batcheller regarding certain matters relating to the eleventh census. (Journal of the House, 50th Cong., 1st sess., p. 1807.)

December 17, 1888.—Memorial of W. G. Moody et al., for an examination into all the industries of the country in connection with the census of 1890. (Senate Mis. Docs., 50th Cong., 2d sess., No. 19.)

December 17, 1888.—Memorial of "citizens of the United States," praying that in taking the eleventh census a thorough examination be made into the condition of all the industries of the country. (Journal of the Senate, 50th Cong., 2d sess., p. 64.)

January 28 and 29, 1889.—Resolution of the Kansas legislature in favor of providing for the enumeration in the eleventh census of all surviving soldiers and sailors, showing their age, number of company and regiment, and length of service in the late war. (Journal of the Senate, 50th Cong., 2d sess., pp. 219, 224.)

During the first session of the Fifty-first Congress (1889-90) numerous petitions and memorials were presented praying that the eleventh census be required to include statistics regarding farms, homes, and mortgages. (Journal of the Senate.)

During the first session of the Fifty-first Congress (1889-90) numerous petitions by citizens and associations, etc., in various sections of the United States, asking for the collection of statistics regarding farms, homes, and mortgages at eleventh census. (Journal of the House.)

During the first session of the Fifty-first Congress (1889-90) numerous petitions were filed asking for the collection of data regarding electrical industries by eleventh census. (Journal of the House.)

During the first session of the Fifty-first Congress (1889-90) memorials of boards of trade of New York, Philadelphia, and Duluth (and probably other cities) were filed protesting against the passage of House bill No. 6420 (to amend the act of taking the eleventh census) because it is in violation of the treaty between the United States and China, will provoke hostility of China, etc. (Journal of the House.)

November 15, 1889.—John W. Noble, Secretary of the Interior, suggests, upon the recommendation of the Superintendent of Census, the desirability of a permanent census office. (House Ex. Docs., 51st Cong., 1st sess., vol. 2, p. xvii.)

December 16, 1889.—Estimate by Secretary of the Interior for printing, engraving, and binding for the eleventh census. (House Ex. Docs., 51st Cong., 1st sess., No. 49.)

December 19, 1889.—Report from Census Committee as to increase of number of supervisors. (Senate Reports, 51st Cong., 1st sess., No. 14.)

January 6, 1890.—Mr. Dockery's resolution as to the impracticability of ascertaining the recorded indebtedness of private corporations and individuals. (House Mis. Docs., 51st Cong., 1st sess., No. 46.)

January 29, 1890.—Estimate of Secretary of the Interior for an appropriation for the eleventh census. (House Ex. Docs., 51st Cong., 1st sess., No. 160.)

February 27, 1890.—Report from select committee in relation to allowance of per diem in lieu of subsistence to census agents. (House Reports, 51st Cong., 1st sess., No. 483.)

February 27, 1890.—Report from select committee in relation to enumeration of Chinese. (House Reports, 51st Cong., 1st sess., No. 486.)

March 6, 1890.—Petition of Board of Trade and Labor Association, of Columbus, Ohio, for change in the time of year of taking the census; for examination of the industries of the country; and of the employment and idleness of the people. (Journal of the House, 51st Cong., 1st sess., p. 314.)

May 7, 1890.—Regulations concerning mortgage indebtedness on farms and homes. (Senate Ex. Docs., 51st Cong., 1st sess., No. 114.)

May 10, 1890.—Estimate for an appropriation for engraving, printing, and binding for the eleventh census. (House Ex. Docs., 51st Cong., 1st sess., No. 373.)

January 21, 1891.—Petition of Ohio enumerators for more adequate compensation. (Journal of the House, 51st Cong., 2d sess., p. 173.)

February 16, 1891.—A permanent census bureau. (Senate Ex. Docs., 52d Cong., 1st sess., No. 1.)

November 1, 1891.—John W. Noble, Secretary of the Interior, calls attention to his previous recommendation for a permanent census office. (House Ex. Docs., 52d Cong., 1st sess., vol. 14, p. LXXXV.)

December 7, 1891.—A report prepared by the Superintendent of Census, transmitted through the Secretary of the Interior, embodying the results of consideration of the matter of the establishment of a permanent census bureau, together with a draft of a bill. (Senate Ex. Docs., 52d Cong., 1st sess., No. 1.)

January 6, 1892.—Secretary of the Interior asks immediate action on estimate for appropriation. (House Ex. Docs., 52d Cong., 1st sess., No. 51.)

February 4, 1892.—Report from Committee on Appropriations in favor of appropriation to continue work of eleventh census. (House Reports, 52d Cong., 1st sess., No. 9.)

February 24, 1892.—Report from Committee on Appropriations on same subject as above. (House Reports, 52d Cong., 1st sess., No. 432.)

April 1, 1892.—Report from Committee on Rules favoring an investigation of the census office. (House Reports, 52d Cong., 1st sess., No. 961.)

April 4, 1892.—Secretary of the Interior transmits report of examination and review of census office. (Senate Ex. Docs., 52d Cong., 1st sess., No. 69.)

April 19, 1892.—Petition of David S. Thompson for an investigation of the methods and practices of the census office. (Journal of the House, 52d Cong., 1st sess., p. 303.)

April 23, 1892.—Report from select committee favoring an investigation of the census office. (House Reports, 52d Cong., 1st sess., No. 1170.)

April 23, 1892.—Report from select committee favoring amendments to existing census law. (House Reports, 52d Cong., 1st sess., No. 1171.)

June 30, 1892.—Report from Committee on Eleventh Census in regard to publication. (House Reports, 52d Cong., 1st sess., No. 1708.)

July 9, 1892.—Memorial of North Carolina State Dental Association, with resolution protesting against the action of the census bureau in classifying dentists as manufacturers; and refusing to fill schedules. (Journal of the House, 52d Cong., 1st sess., p. 411.)

July 16, 1892.—Report of select committee in regard to investigation of census office. (House Reports, 52d Cong., 1st sess., No. 1933.)

During the months of January, February, March, and December, 1892, numerous petitions and memorials were presented for collection of statistics in eleventh census concerning farms, homes, and mortgages. (Journal of the Senate.)

In 1891 and 1892 several memorials, etc., were presented in favor of the establishment of a permanent census bureau. (Journal of the Senate.)

November 15, 1892.—John W. Noble, Secretary of the Interior, states that the Superintendent of Census again presents his views as to a permanent census bureau. (House Ex. Docs., 52d Cong., 2d sess., vol. 12, p. xc.)

January 26, 1893.—Petition of New York enumerators for increased compensation. (Journal of the House, 52d Cong., 2d sess., p. 64.)

February 1 and 2, 1893.—Report of select committee as to expediency of establishing a permanent census bureau. (House Reports, 52d Cong., 2d sess., No. 2393, parts 1 and 2.)

March 3, 1893.—Report of select committee as to alleged mismanagement of census office. (House Reports, 52d Cong., 2d sess., No. 2617, parts 1 and 2.)

March 5, 1894.—Letter from Commissioner of Labor, in charge of eleventh census, states reasons why report on manufactures has not been published. (Senate Ex. Docs., 53d Cong., 2d sess., No. 52.)

November 21, 1894.—Hoke Smith, Secretary of the Interior, suggests expediency of destroying population schedules when schedules of succeeding census have been collected. (Report of Secretary of the Interior for year ending June 30, 1894, vol. 1, p. xxiv.)

December 3, 1896.—D. R. Francis, Secretary of the Interior, says that Commissioner of Labor will submit plan for permanent census, and says that some plan should be adopted by which future census results can be brought out with greater promptness. (Report of Secretary of the Interior for year ending June 30, 1896, p. 81.)

December 7, 1896.—The Commissioner of Labor submitted a report on a plan for a permanent census service. (Senate Ex. Docs., 54th Cong., 2d sess., No. 5.)

November 16, 1897.—C. N. Bliss, Secretary of the Interior, calls attention to pending bill for permanent census, and to report of Commissioner of Labor on the necessity of early legislation for taking the twelfth census. (Report of Secretary of the Interior for the year ending June 30, 1896, p. 53.)

In 1891, 1892, 1893, 1896, and 1897 many petitions were filed for the revision of statistical legislation; for provision for future enumerations; and for the establishment of a permanent census bureau. (Journal of the House.)

January 1, 1898.—Petition of Economic Circle of Johnstown, Pa., praying for an enlargement of the scope of coming census (1900), so as to include a classification of values of real estate and improved property. (Journal of the Senate, 55th Cong., 2d sess., pp. 63, 72.)

February 15, 1898.—Petition of the "Society of the Daughters of the American Revolution" (of Santa Fe, N. Mex.), asking for the publication in permanent form of the name, age, occupation, residence, and nativity of each head of a family contained in the census of 1790. (Journal of the House, 55th Cong., 2d sess., p. 211.)

In 1896, 1897, and 1898 several memorials, etc., were presented in favor of the establishment of a permanent census bureau. (Journal of the Senate.)



Y 4.C 33/2 H 62 C.1  
The history and growth  
Stanford University Libraries



3 6105 045 191 926

